

The Russian Military in Contemporary Perspective

Stephen J. Blank
Editor



U.S. ARMY WAR COLLEGE

SSI
STRATEGIC STUDIES INSTITUTE

The United States Army War College

The United States Army War College educates and develops leaders for service at the strategic level while advancing knowledge in the global application of Landpower.

The purpose of the United States Army War College is to produce graduates who are skilled critical thinkers and complex problem solvers. Concurrently, it is our duty to the U.S. Army to also act as a “think factory” for commanders and civilian leaders at the strategic level worldwide and routinely engage in discourse and debate concerning the role of ground forces in achieving national security objectives.



The Strategic Studies Institute publishes national security and strategic research and analysis to influence policy debate and bridge the gap between military and academia.



The Center for Strategic Leadership contributes to the education of world class senior leaders, develops expert knowledge, and provides solutions to strategic Army issues affecting the national security community.



The Peacekeeping and Stability Operations Institute provides subject matter expertise, technical review, and writing expertise to agencies that develop stability operations concepts and doctrines.



The School of Strategic Landpower develops strategic leaders by providing a strong foundation of wisdom grounded in mastery of the profession of arms, and by serving as a crucible for educating future leaders in the analysis, evaluation, and refinement of professional expertise in war, strategy, operations, national security, resource management, and responsible command.



The U.S. Army Heritage and Education Center acquires, conserves, and exhibits historical materials for use to support the U.S. Army, educate an international audience, and honor Soldiers—past and present.

STRATEGIC STUDIES INSTITUTE



The Strategic Studies Institute (SSI) is part of the U.S. Army War College and is the strategic-level study agent for issues related to national security and military strategy with emphasis on geostrategic analysis.

The mission of SSI is to use independent analysis to conduct strategic studies that develop policy recommendations on:

- Strategy, planning, and policy for joint and combined employment of military forces;
- Regional strategic appraisals;
- The nature of land warfare;
- Matters affecting the Army's future;
- The concepts, philosophy, and theory of strategy; and,
- Other issues of importance to the leadership of the Army.

Studies produced by civilian and military analysts concern topics having strategic implications for the Army, the Department of Defense, and the larger national security community.

In addition to its studies, SSI publishes special reports on topics of special or immediate interest. These include edited proceedings of conferences and topically oriented roundtables, expanded trip reports, and quick-reaction responses to senior Army leaders.

The Institute provides a valuable analytical capability within the Army to address strategic and other issues in support of Army participation in national security policy formulation.

Strategic Studies Institute
and
U.S. Army War College Press

**THE RUSSIAN MILITARY IN
CONTEMPORARY PERSPECTIVE**

Stephen J. Blank
Editor

September 2019

The views expressed in this report are those of the authors and do not necessarily reflect the official policy or position of the Department of the Army, the Department of Defense, or the U.S. Government. Authors of Strategic Studies Institute (SSI) and U.S. Army War College (USAWC) Press publications enjoy full academic freedom, provided they do not disclose classified information, jeopardize operations security, or misrepresent official U.S. policy. Such academic freedom empowers them to offer new and sometimes controversial perspectives in the interest of furthering debate on key issues. This report is cleared for public release; distribution is unlimited.

This publication is subject to Title 17, United States Code, Sections 101 and 105. It is in the public domain and may not be copyrighted.

Comments pertaining to this report are invited and should be forwarded to: Director, Strategic Studies Institute and U.S. Army War College Press, U.S. Army War College, 47 Ashburn Drive, Carlisle, PA 17013-5238.

All Strategic Studies Institute (SSI) and U.S. Army War College (USAWC) Press publications may be downloaded free of charge from the SSI website. Hard copies of certain reports may also be obtained through the U.S. Government Bookstore's website at <https://bookstore.gpo.gov>. SSI publications may be quoted or reprinted in part or in full with permission and appropriate credit given to the U.S. Army Strategic Studies Institute and U.S. Army War College Press, U.S. Army War College, Carlisle, PA. Contact SSI by visiting our website at the following address: <https://ssi.armywarcollege.edu/>.

The Strategic Studies Institute (SSI) is the U.S. Army's institute for geostrategic and national research and analysis. SSI supports the U.S. Army War College (USAWC) curricula, provides direct analysis for Army and Department of Defense leadership, and serves as a bridge to the wider strategic community. SSI studies are published by the USAWC Press and distributed to key strategic leaders in the Army and Department of Defense, the military educational system, Congress, the media, other think tanks and defense institutes, and major colleges and universities.

ISBN 1-58487-791-X

FOREWORD

By all indications, Vladimir Putin's aggressive policies against the West continue without interruption. These military and non-military activities oblige us to take account of the entire Russian defense establishment, its capabilities, and its objectives. This book aims to accomplish that task. Based on a 2016 conference with an international lineup of prominent experts on the Russian military, the papers collected here aim to provide a synoptic view of domestic developments, the ability of Russia's economy (and in particular, its science and technology sectors) to support its defense programs, its operations in Syria and Ukraine, Russian information warfare, nuclear issues, the Russian Navy, and a theater by theater assessment of the ongoing buildup of Russian forces and the challenges they face.

For all the outpouring of literature on the Russian challenge and threat since the invasion of Ukraine in 2014, there is nothing quite like this in existence today in the West. Therefore, the Strategic Studies Institute (SSI) is proud to make this compendium available to its readers in the hope that it will arouse debate to stimulate research and inform amateurs and professionals alike. It is clear that the Russian challenge will be with us for a long time, and it, therefore, behooves us to take account of the comprehensive nature of this challenge. For these reasons, SSI is proud to present this book to

its audience and to contribute to the debate on national security.

A handwritten signature in cursive script that reads "Isaiah Wilson III".

ISAIAH WILSON, III
Director
Strategic Studies Institute and
U.S. Army War College Press

SUMMARY

Wherever one looks, Russia is carrying out aggressive military and informational attacks against the West in Europe, North and South America, the Arctic, and the Middle East. This “war against the West” actually began over a decade ago, but its most jarring and shocking event, the one that started to focus Western minds on Russia, was the invasion of Ukraine in 2014. Given this pattern, the National Security Council (NSC) in 2014 invited Stephen Blank to organize a conference on the Russian military. We were able to launch the conference in 2016 and bring together a distinguished international group of experts on the Russian military to produce the papers that were then subsequently updated for presentation here.

The results presented here are sobering, to say the least. Ray Finch and Aleksandr Golts highlight the domestic program of military mobilization of Russian society that began before 2014 and has only intensified since then. It aims to engender a positive, heroic image for the military and the idea that Russia is under siege from the West. This campaign has also gone hand in hand with signs of greatly enhanced defense spending, although there have been cuts in 2017-2018 due to sanctions. However, despite the fact that Paul Schwartz rightly points out that Russia’s science and technology sectors are wounded and suffer from excessive militarization, he and Steven Rosefielde undermine the complacent and excessively comfortable notion that Russian economic weakness—which is real—will lead to the collapse of the system or its retreat from its current posture.

The examination of current military operations in Ukraine and Syria by Keir Giles and Stephen Blank

confirm that, from Moscow's point of view, the use of force has, on balance, proven successful. These operations also highlight Vladimir Putin's determination to uphold and extend the great power status of Russia and to be seen as an advancer of Russian domestic policy. Indeed, foreign and defense policies are, to a large degree, resources for the consolidation and legitimacy of the regime at home. Beyond that, these analyses highlight enduring aspects of Russian military operation (e.g., deception operations). Russia's determination to project power abroad is not exclusively for domestic purposes, but it is also intended to force a revision of global order and attain enduring recognition as a great global power whose voice must be heard in all major international crises.

In this context, Russia's nuclear and information warfare programs assume greater importance. The chapters on nuclear weapons by Mark Schneider and James Howe, therefore, make for sober consideration. Schneider and Howe carefully examined the major nuclear buildup – part of which Putin discussed in his speech to the Federal Assembly on March 1, 2018. They show a huge buildup of these weapons, including new types of weapons like hypersonics; the violation of almost all of the existing arms control treaties; and, long-range scenarios and their possible use in a war. Lieutenant Colonel Pentti Forsström duly shows that, in war planning, conventional and nuclear scenarios are relatively seamlessly fused, and that Russia sees its nuclear weapons as instruments of warfighting. Similarly, Tim Thomas demonstrates that, for Moscow (and unlike Washington), cyber and information war are two sides of the same coin, not separate phenomena. Moreover, he demonstrates the range of uses and

importance that these linked forms of war have today for Moscow.

Those discussions then lead to an analysis of the conventional buildup of the Russian armed forces, theater by theater, including the Navy. Jacob Kipp stresses the historical forces that now undergird the development of the Russian Army, while Isabelle Facon looks at the use of the Army for conventional operations and the strategy behind it. Ariel Cohen focuses on the ongoing insurgency in the North Caucasus. Katarzyna Zysk goes into great detail regarding the buildup in the Arctic that now has the potential to threaten North Atlantic Treaty Organization (NATO) allies and provide a base for threatening the North Atlantic maritime highway to Europe. James Sherr reminds us that the Black Sea basin remains potentially the most dangerous area not only because of Ukraine but also because of the threats to the Balkans, something that Supreme Allied Commander Europe (SACEUR) General Curtis Scapparoni recently also mentioned in his congressional testimony. Sébastien Peyrouse demonstrates the substantial Russian military presence in Central Asia, while Richard Weitz's focus on the Pacific and the Far East reminds us of just how important that area is to Moscow.

All in all, therefore, this volume provides an enormous amount of information on a subject that will only grow in importance, and that demands the most careful assessment and scrutiny by policymakers and all those interested in the defense of U.S. and allied interests.

CONTENTS

Foreword	vii
Summary	ix
Chapter 1. Introduction.....	1
<i>Stephen J. Blank</i>	
Chapter 2. Cutting the Putian Knot: Developing a Strategy for Dealing with an Authoritarian, Unstable, and Armed Russian Regime	59
<i>Daniel Gouré</i>	
Chapter 3. Russia’s Military Industrial Resurgence: Evidence and Potential.....	133
<i>Steven Rosefielde</i>	
Chapter 4. Russian Science and Technology: Current State and Implications for Defense.....	157
<i>Paul Schwartz</i>	
Chapter 5. Military Exercises: The Russian Way.....	219
<i>Isabelle Facon</i>	
Chapter 6. The Mobilization of Russian Society.....	249
<i>Ray Finch</i>	
Chapter 7. Modernization versus Mobilization.....	265
<i>Aleksandr Golts</i>	
Chapter 8. Russia’s “Lessons Learned” from Ukraine and Syria.....	287
<i>Keir Giles</i>	

Chapter 9. Russian Nuclear Weapons Policy and Programs, the European Security Crisis, and the Threat to NATO.....	305
<i>Mark B. Schneider</i>	
Chapter 10. Future Russian Strategic Nuclear and Non-Nuclear Forces: 2022.....	341
<i>James R. Howe</i>	
Chapter 11. A Clinic on Clausewitz: Lessons of Russia’s Syria Campaign.....	401
<i>Stephen J. Blank</i>	
Chapter 12. Russia’s Expanding Cyber Activities: Exerting Civilian Control While Enhancing Military Reform.....	491
<i>Timothy Thomas</i>	
Chapter 13. Russian Naval Power Under Vladimir Putin.....	575
<i>Jacob W. Kipp</i>	
Chapter 14. Russia’s Strategic Underbelly: Military Strategy, Capabilities, and Operations in the Arctic.....	687
<i>Katarzyna Zysk</i>	
Chapter 15. Russian Military Interests in the Baltic Region in Light of the Crimean Operation and the Development of the Perceptions in the Military Sphere.....	725
<i>Pentti Forsström</i>	

Chapter 16. When Do You Know it is a Bridge too Far? Emergency Deputies Committee Meeting, Defense of the Baltic States	755
<i>Sam Gardiner</i>	
Chapter 17. Ukraine and the Black Sea Region: The Russian Military Perspective	779
<i>James Sherr</i>	
Chapter 18. Russia in North Caucasus: Two Hundred Fifty Years of Counterinsurgency. Putin’s War Against Islamist Extremism	823
<i>Ariel Cohen</i>	
Chapter 19: Russia’s Military Presence in Central Asia: Strategy, Capabilities, and Threats	883
<i>Sébastien Peyrouse</i>	
Chapter 20. Russian Military Power and Policy in the Far East	917
<i>Richard Weitz</i>	
Chapter 21. Responding to Russia’s Challenge to Eastern Europe: The Imperative to Adopt a Policy of “Honest Defense”	975
<i>Thomas-Durell Young</i>	
Chapter 22. NATO and a Resurgent Russia: Can the Alliance Adapt?.....	1009
<i>Andrew A. Michta</i>	
About the Contributors.....	1035

CHAPTER 1. INTRODUCTION

Stephen J. Blank

INTRODUCTION

Two weeks before Russian forces invaded Crimea in 2014, U.S. Government officials asked this author to convene a meeting or conference to explain Russian military developments to the general nongovernmental, expert, and elite community in Washington, DC. It is a sign of the continuing insufficiency of interest, awareness, and resources afflicting the U.S. Government and the broader funding community in their efforts to understand Russia that it took 20 months to get the funding necessary for this conference and then hold it in May 2016. These facts alone (and they are by no means the only relevant ones) testify to the continuing state of a deeply troubling lack of insight and understanding into what might be our most urgent security challenge. This occurred at a time when Russia had invaded and annexed Crimea, invaded the Donbass, and was making constant threats all over Europe. Furthermore, the government was publicly lamenting the absence of sound analysis on Russia, an absence that is not surprising, since the government stopped investing in that expertise after 1991 and still has not moved to restore that funding.¹ Neither was the reigning lack of expertise or interest in things Russian confined to the United States.² Nor has this situation been rectified as of the spring of 2017 as the current crisis over Russian interference with the 2016 presidential election shows.

Today, of course, there is now a veritable obsession with Russia's challenges to the United States

and our North Atlantic Treaty Organization (NATO) allies, but it is not clear if the level of true insight and understanding into the Russian military or even actual interest in what is really transpiring there is sufficient. There remains an enormous amount of misperception and even incorrect analyses that still enjoys circulation. For example, the habit of using the term “hybrid war,” a U.S. term that designates the activities and capabilities of nonstate insurgents vis-à-vis state militaries, to describe Russian operations still persists. This author, if not others, can testify to innumerable continuing examples where analysts in and out of government still resort to “mirror imaging” as if Russians thought as we do and employed the same concepts to depict their operations. Moreover, the Russian interference in Western political life shows no sign of abating as the French, Dutch, and German elections of 2017, and continuing revelations of Russian activity in the United States show. Moreover, Russian Defense Minister Sergei Shoigu recently announced that Russia has now achieved military parity with the West, an announcement that should impel us to take Russian military issues more seriously.³

We must take such statements seriously, because our own military leaders have been warning for years about the erosion of our military leadership and ability to defend our interests abroad (and not only from Russia). For example, in recent testimony, Chairman of the Joint Chiefs of Staff General Joseph Dunford stated that “In just a few years, if we don’t change our trajectory, we will lose our qualitative and quantitative competitive advantage—[the military will need] sustained, sufficient, and predictable funding—[or lose] our ability to project power.” He further called for repeal of the sequestration (the Budget Control Act of 2011) saying

that if it is not repealed within 4 years, the U.S. military will be “much smaller” or a “hollow force.”⁴ Neither is this an isolated call to action. Instead, it is merely the latest in many warnings over the last few years.

Therefore, our purpose in holding the conference that has led to this book was to get people to begin asking the right questions and understanding the need to think with Russia, rather than simply continuing to deride or mislabel and misread its capabilities. To be sure, Russia does not make things easy for foreign observers, its defense and other policies are deliberately opaque aside from the obvious cultural difficulties in understanding them. Nevertheless, while we do not believe we can resolve all debatable issues and do not try to do so, it is imperative to introduce some clarity into the ongoing and vital discussion concerning the nature of Russian defense policy and Russian strategy in all their manifestations. Accordingly, we have covered: Russian operations in Syria and Ukraine; the manpower and domestic mobilization issues; the capabilities of Russia’s economy and scientific and technological (S&T) base to sustain the defense sector; Russian information warfare (IW); the role played by nuclear weapons and developments in that critical sector; the Russian Navy; and Russian defense postures in the regions surrounding Russia (the Arctic, Europe, the Black Sea, Caucasus [and North Caucasus], Central Asia, and the Asia-Pacific). Moreover, in so doing we tried to bring together the best available international scholarship (i.e., not just Western or American scholars). Finally, we deliberately added a last section—the papers by Andrew Michta, Thomas-Durell Young, and Daniel Gouré—concerning the state of allied forces in Europe and recommendations as to what we must do to meet those Russian challenges that we now confront.

Although we obviously cannot provide definitive or unchallengeable conclusions, the forceful and detailed arguments made by the authors are sobering as they properly should be. For example, many official and non-official comments on Russia, including those by experts, highlight Russia's overall economic weakness and general decline with the implication being that Russia cannot sustain its military-political and strategic challenge to Washington and NATO, especially if NATO's resources are mobilized. Therefore, and in line with former President Barack Obama's oft-quoted statements that Russia is merely a regional power and former Vice President Joseph Biden's comments that it is in terminal decline, the challenge, while serious, is limited. While both men may well be correct, and the evidence of economic, scientific-technological, and demographic decline is overwhelming, it does not and should not translate into complacency about the Russian threat in either its military or other dimensions.⁵ That threat is not diminishing – quite the opposite.

What we have seen since 2014 is a sophisticated combination of Russia's innovative uses of modern technology, most obviously in information warfare, but also in its tactics in Ukraine.⁶ This sequence of developments also represents a creative updating and adaptation of older Soviet ideas. In *IW*, this author and other scholars have located the origins and many of the principal ideas of today's operations in the Leonid Brezhnev or even interwar periods of Soviet rule. As Maria Snegovaya, this writer, and historians like Jonathan Haslam have pointed out, virtually all these combinations were created, utilized, and deployed in the Soviet Union.⁷ This historical linkage confirms the operation of the U.S. Commander in Chief of U.S.

European Command (USEUCOM) in 2014-16, General Philip Breedlove, who wrote:

It is clear that the invasion was part of a well-developed strategy that took the classic elements of Soviet military thinking and combined them with 21st-century tools, tactics and capabilities to achieve Russia's political goals along its periphery. This strategy, quite simply, has significant implications for Europe's future security. Surprise, deception and strategic ambiguity have been adeptly employed by Russia against Ukraine. The Russians have demonstrated unexpected flexibility in moving their forces significant distances, achieving readiness very rapidly, and maneuvering to preserve a variety of options. This degree of agility and speed is new and it is something to which we have to adapt. The Russian strategy also represents a significant broadening of potential actions by the country's military and the effective integration of the armed forces with other elements of national power to achieve political objectives. Taken together, Russian military actions in the Ukraine crisis demonstrate a new model of Russian military thinking, applying traditional tenets of Russian military thought to Russia's core national goals.⁸

Similarly, the U.S. Defense Intelligence Agency has recently observed:

Russian doctrine on precision strike is essentially a 21st century extension of the Russian doctrine of "deep battle" initially codified during the 1920s and 1930s by Chief of the General Staff Mikhail Tukhachevsky and represents an attempt to incorporate new technology into traditional Russian strategic, operational, and tactical strategy. (As stated in the original) Deep battle was a strategic concept that focused on terminating, overwhelming, or dislocated enemy forces not only at the line of contact, but throughout the depth of the battlefield. Deep battle encompassed maneuvers by multiple Soviet Army front-size formations simultaneously. It was not meant to deliver a victory in a single operation; instead, multiple

operations, which might be conducted in parallel or successively, would induce a catastrophic failure in the enemy's defensive system.⁹

Likewise, Russian reforms in force structure have brought back and augmented the capabilities of the Battalion tactical group (BTG), a formation first seen in the Soviet war in Afghanistan.¹⁰ Therefore, the need for increased expertise and insight into Russian military affairs is urgent.

As the chapters by Ray Finch and Aleksandr Golts make clear, the government has launched a comprehensive program to mobilize the state and the society for the purposes of portraying Russia as a besieged fortress, militarizing the economy in the direction of Soviet-type resource allocation policies, and creating a new National Guard. Since the conference, Russian President Vladimir Putin has also called for a new KGB-like organization and profound upgrades to Russia's domestic military forces.¹¹ Moreover, as Golts points out, and as subsequent military commentary has noted, the recreation of divisions, and even armies, from the brigades created during the reform of 2008-2012 suggests a renewed consideration of the likelihood of large-scale conventional, if not nuclear, war in a theater as a real contingency, if not a priority.¹²

However, analysts have failed to recognize that this mobilization program is, in fact, a long-standing one. In the Russian tradition, defense reform cannot take place until the state structure is itself subjected to a comparably comprehensive reform. This philosophy is also true for Vladimir Putin's Russia. Defense reform only began in 2008, once it became clear how bad the military's condition was in the wake of its war with Georgia. Noted by few foreign analysts, a vital administrative reform of the state occurred

after 2000.¹³ In that context, and in tandem with the defense reform that began in 2008, Putin and then-President Dmitry Medvedev postulated the need for further reform of the state structure to make it ready for mobilization for strategic purposes already in the national security strategy of 2009 and the defense doctrine of 2010.¹⁴ Since then, and particularly after 2014, this mobilization process of the state accelerated to the point now visible to Western observers. Indeed, in the Kavkaz 2016 exercises, Russia mobilized the civil administration, having done so before, which included the mobilization of banks to pay soldiers in the field and of hospitals to support those exercises—a sign of the commitment to mobilizing the entire state structure during a large war where the survival of the state is obviously at risk.¹⁵

Before and since the conference, the Russian Government and media have clearly highlighted moves that suggest the likelihood of a major war with the West. Thus, the return of this contingency to center stage in military planning, either as a priority or at least as a major contingency, must be assessed. While there is no discernible serious Western military threat, notwithstanding blaring Russian propaganda to that effect, it is also possible that this lurch toward structural militarization—a term coined by the late Vitaly Shlykov—denotes a comprehensive movement directed toward stifling any public protest at home by the threat of force and the invocation of the maxim that the fatherland or motherland is in danger.¹⁶ This, of course, is hardly a uniquely Russian phenomenon, but it does mean the systematic generation of a war psychosis, replete with demands for military action and readiness along with high spending and allocation priority, is under Soviet power.

Accordingly, it becomes essential to determine the Russian economic capabilities that exist under the current circumstances, which are clearly unpropitious for sustaining the military. It is already clear that the defense budget for 2017-2019 has been cut. It is also clear that a tremendous battle is taking place on this issue and, as of this writing, the long-term policy struggle continues even though the budget has been reduced.¹⁷ Even if the defense budget is meaningfully reduced, the conference paper by Dr. Steven Rosefielde strongly argues that Putin has found a workable solution to getting as much as he can out of the military-industrial complex with all of its multifarious economic pathologies. He thus concludes:

Russia is weathering the storms of plunging natural resources prices and EU [European Union] economic stagnation better than Anders Aslund predicted,¹⁸ and appears on both defense and civilian grounds to provide ample support for Putin's belief that he can successfully resist color revolutions and regime change in non-EU states of the former Soviet Union; thwart democratization, EU accession and NATO expansion on the Kremlin's turf, and expand Moscow's influence in Europe.¹⁹

Thus even without reform or transformation of the current economic situation, Russia can still largely, though probably not completely, fulfill the outlines of the vast defense reindustrialization and procurement program for 2011-2020 and the impending new program through 2025 without breaking the bank either economically or politically at home. Contrary to the facile and complacent statements regularly proffered that Russia cannot sustain its defense program for the next 3 to 4 years, Rosefielde's view appears to be well-supported by other Western findings, such as such as those by this author, Richard Connolly, and Julian Cooper.²⁰

Similarly, Paul Schwartz finds that the defense sector now represents the best or most likely source of innovation potential, which will not get Russia far or overcome its technological backwardness vis-à-vis the West. Indeed, as Stephen Fortescue has recently observed, Putin et al. still see this sector as a locomotive of general industrial-technological progress, just as did their Soviet forebears.²¹ Meanwhile, Russia should be able to produce weapons, especially in certain niche categories, that are good enough and, when combined with innovative tactical concepts, can wreak a lot of havoc.²² This portrayal of technological backwardness, likely decline, and excessive militarization comports with other Western assessments, but for the future, given Russia's niche abilities and the signs that it is receiving Chinese funding, may allow it to overcome the impact of sanctions to some degree, though hardly completely. So here again, though mindful of the decline, we cannot rest on our laurels.²³

Russia's capacity to sustain, albeit within limits, a robust defense sector and military forces are not just a threat to the West because of its capability, but if anything, because of the government's mentality and perspective. This is not a study of Russia's strategic culture, political culture, or the domestic structure of the regime. The recurring idea that the state must aspire to be able to mobilize the entire society if necessary, and its now deep-rooted belief that it is under siege from, if not at war with, the West not only indicates the presupposition of conflict—to use Carl Schmitt's phrase—but also constitutes another sign of war psychosis. Thus, it is Russian leaders, not Western ones, who cavalierly say that the return of the Cold War is “a fact of life.”²⁴ Moreover, apart from planning the invasion of Georgia since 2006 with the help of separatists,

invading and annexing Crimea, invading the Donbass, intervening in Syria, launching campaigns to interfere in Brexit, interfering in German and U.S. elections, and conducting economic warfare and subversion all across Europe that included a recent coup in Montenegro to punish it for joining NATO, Russia has even waged war against its own people.²⁵ In other words, **Russia acts as if it is, and considers itself to be, at war with NATO, not just the United States.** Indeed, on January 18, 2005, Russian Defense Minister Sergei Ivanov told the Academy of Military Sciences, the official institutional locus of systematic thinking about contemporary war:

There is a war against Russia under way, and it has been going on for quite a few years. No one declared war on us. There is not one country that would be in a state of war with Russia. But there are people and organizations in various countries who take part in hostilities against the Russian Federation.²⁶

This conclusion obligates us to consider in this context the range of military capabilities that Russia is bringing to bear in this “war.” Since nuclear weapons are the priority procurement for Russia, given its conventional inferiority to the United States and its obsession with the great power status that nuclear weapons bring to Russia’s international standing, we begin with the conference’s assessment of those capabilities.

James Howe and Mark Schneider provide enormous detail on not only the nuclear buildup undertaken by Moscow but also how this buildup will lead Russia beyond the limits of the New Strategic Arms Reduction Treaty (START) by 2018, not when the treaty expires in 2021. Moreover, the nuclear buildup is not restricted to modernizing existing types of weapons.²⁷

Moscow is also building hypersonic systems that are both counterforce and countervalue nuclear weapons.

Whatever Russia's motivations are—and obviously there is much argument about this issue—it seems clear that Russia regards its nuclear arsenal as one for warfighting. Moreover, there is no clear doctrine or strategy governing the use of these weapons.²⁸ In other words, it seems as though Russia is rebuilding an enormous nuclear arsenal, yet has no settled, clear, or coherent strategy for using them, letting it all up to Putin. In other words, the escalate to de-escalate notion, which is the Russian nuclear strategy largely accepted by the U.S. establishment, is a concept that is in fact ungrounded in evidence. Rather, Putin's nuclear strategy seems to consider the possibility of using these weapons in a first strike mode as potential or actual warfighting weapons. Thus, these weapons can to be used as threats, if not in actual combat, throughout the entire phase of a crisis, from start to finish, as a means of escalation control to deter and inhibit NATO from resisting. This idea that these weapons are there to be used for political or actual operational-strategic purposes undermines the escalate to de-escalate theory and invalidates much of the unfounded and ethnocentric, if not mirror-imaged, U.S. writing that nuclear weapons have no discernible military purpose. Unless one assumes the Kremlin to be completely bereft of the capacity to think rationally, it most assuredly discerns enormous utility in building and using these systems, and this development must force us to think anew about the role played by nuclear weapons in contemporary warfare. Arguably, it also calls into question the utility of not modernizing the U.S. nuclear force and of pursuing disarmament with a state that has made clear that arms control treaties

(e.g., the Intermediate-Range Nuclear Forces Treaty (INF Treaty), are merely a “scrap of paper.”

The undermining of comfortable shibboleths concerning nuclear weapons is hardly the only consequential argument made in this book. For example, there are real questions posed by Russian and Western analysts alike as to whether the Russian economy in its present incarnation can sustain Putin’s military policies.²⁹ Clearly, a tremendous political battle is taking place over the future size of the defense budget.³⁰ We have already seen that, barring a catastrophe, Russia will be able to continue its military modernization program, although it is unlikely to achieve 100 percent of its goals by 2020. While the Syrian campaign has served as a laboratory for Russian weapons and shown which ones have defects, it also will indicate the directions of future weapons.³¹

Furthermore, it is apparent from the nuclear programs that Russia not only believes in a war that can go nuclear, its nuclear strategy far transcends the crude and equally misconceived notion of escalate to de-escalate in wartime that is accepted by too many Western governments and officials, not to mention would be pundits. Instead, as many commentators have observed, Moscow’s strategy to date (although it might be changing) may best be described as non-linear warfare or, to use the Russian terms, wars of a new type or new generation warfare. Even though Moscow is building nuclear weapons to strike at the continental United States, its preferred option most likely is a limited war backed up by a nuclear arsenal that would deter any NATO reaction from start to finish (i.e., impose escalation control on NATO throughout all the stages of a crisis, while it secures what it believes are limited ends, preferably by limited ways). Indeed,

one British participant at a NATO conference observed that Moscow relies on nuclear weapons for “setting up a force field of inhibition operating at an even more fundamental level than generalized deterrence.”³² As Stephen Covington suggests, Russia’s initial conventional and nuclear deployments around Ukraine aimed, among other things, to prevent any potential Ukrainian or NATO counter-escalation to the seizure of Crimea and thus represented a material embodiment of the idea of controlling escalation throughout all stages of a crisis.³³ As he writes:

This Russian approach is fundamental to controlling the operational and strategic levels of conflict and maintaining dominance over escalation options at higher levels—even as the ambiguous [hybrid] campaign is launched and waged.³⁴

Western observers with some experience of studying Russian military operations apparently concur that this strategy of escalation dominance—which subsumes escalating to nuclear force in order to force us to de-escalate within this strategy’s broad parameters—precisely expresses Russian strategy. In his recent novel of war with Russia, General Sir Richard Shirreff, former Deputy Supreme Allied Commander Europe (SACEUR), states:

We are now up against an adversary who integrates nuclear weapons into every aspect of its war-fighting doctrine and is prepared to use them. And because Russia will be able to concentrate stronger conventional forces than NATO, that increases the risk that once Russia has defeated us in the Baltic states, the President (i.e, Putin—author) will resort [to] what he calls ‘nuclear de-escalation.’³⁵

In other words, failure to deter Russia conventionally in Europe will almost certainly tempt it to create a situation entailing an invasion of NATO territory (most likely the Baltic States) followed by nuclear blackmail that warns that any attempt to defend the territory in question will lead to nuclear strikes, probably by a tactical nuclear weapon (TNW).³⁶ In this context, it is also entirely plausible that using the oppression of national minorities to dislodge NATO from the Baltic States, Putin or his successor could claim them as Russian territory, as in the Crimean precedent, and then invoke Russian doctrine to say that any attack on Russian territory will be met by a nuclear strike.³⁷

NATO's failure to construct an adequate conventional defense of the Baltic or potentially of its Balkan members therefore opens it up to the possibility of nuclear blackmail and violates the rule of deterrence (the rule being that deterrence, to be effective, must match the threat at every level, conventional or nuclear).³⁸ This failure has opened the door to Russia's approach toward the use of nuclear weapons for purposes of escalation control throughout all the stages of a crisis. This Russian approach of escalation control certainly relates to operations in Crimea and initially in the Donbass, although the latter has descended into a very conventional type of war and the former is a coup de main rather than a genuine combat operation. If Crimea has an analogue, it is the 1938 Nazi Anschluss of Austria. That also applies to the preconflict massive penetration of both the Crimean and overall Ukrainian population and elite, a process that also occurred in Austria, and would be analogous to what has been called the Anschluss from within.³⁹ This means that we are facing an innovative kind of asymmetric, but not hybrid warfare—a term that is irrelevant or meaningless

to Russia but was adopted by Western audiences due to their intellectual laziness and inherent proclivity for mirror imaging. Hybrid warfare, as its originator Frank Hoffman notes, is not about Ukraine.⁴⁰ Rather, it is about nonstate entities like Hezbollah or the Chechens coming to possess several military attributes of states as well as an ability to wage IW against those states, in these cases, Israel and Russia.⁴¹

Therefore, it would be more accurate to say that we are facing a comprehensive challenge that simultaneously and constantly comprises conflicts that need not have any discernible starting point or phases as in U.S. literature. To use the U.S. military terminology, it is always phase 0, and there is no discernible gap between war and peace. Alternatively, as Lenin reiterated, and certainly believed, politics is the continuation of war by other means. Ceasefires, conventional warfare, and incessant IW—defined as attempts to alter mass political consciousness in targeted countries—occur together or separately as needed and are in constant flux. Regular forces can be used conventionally or as proxies, irregular, or even covert forces for alleged peacekeeping operations. The actual use of military force depends on the effectiveness of non-military instruments of power, organized crime, ethnic or other irregular paramilitary groups, espionage, political subversion and penetration of institutions in the targeted country, economic warfare, IW, and special operations forces. Outright victory need not be the intended or victorious outcome. It may be enough to secure constant leverage and influence on the military-strategic, political, and social situation in a state of no war, no peace.

The strategic outcome of such operations and forces is, as General Sir Richard Shirreff (former Deputy

SACEUR) paraphrases, that **“what we are seeing is the use of special operations forces and internal opposition to create a permanently operating front through the entire territory of what Russia has deemed to be an enemy state [emphasis added].”**⁴² Therefore, both prosecution of such a war and resistance against it demand “quick decision-making processes, effective inter-agency coordination, and well trained and rapidly deployable special forces.”⁴³ Unfortunately, those are all areas where NATO, not to mention Ukraine in 2014, have been particularly deficient.

Given that such a fundamental strategic posture involves the military primarily in conventional operations, but is actually a whole-of-state national security strategy that entails the mobilization of much if not all of the state, we must envision issues of Russian nuclear use in an innovative context.⁴⁴ As Stephen Covington argues:

In his March 2016 article, Chief of the General Staff Gerasimov, further clarified Russia’s understanding of hybrid warfare, now seeing it as being composed of one or several strategic operations that actually encompass the full spectrum of means and weapons available from information warfare to space-based weapons. As such, homeland hybrid strategic offense by Russia would combine the most powerful means of ambiguous warfare and Russia’s conventional and nuclear forces. Homeland hybrid strategic offense also implies the redefinition of geographic theaters of military operation or strategic directions to be ground-air-space theaters of military action, requiring coordinated action and dominance across all domains in a campaign. In this all-domain Russian concept, conventional and nuclear forces in a hybrid strategic offense may move to higher levels of readiness, shift their posture on an operational or even strategic scale, or commence deployments from the outset

of the conflict—both within Russia proper, and by forces located outside Russia’s borders.⁴⁵

Similarly, as Heather Williams has written:

Russia’s strategy relies heavily on information warfare and nuclear coercion at opposite ends of the spectrum of escalation. It is heavily weighted in the early stages to sow discontent within states that are domestically weak and capitalizing on regional disputes. The strategy does not linger in the conventional stages, wherein Russia would be inferior over the long-term in a conflict with NATO, and instead relies on nuclear coercion to avoid escalation.⁴⁶

Therefore, issues of nuclear use must be seen in the context of this war as a new type where Russia may seek a slice of territory and permanent leverage manifested in a *fait accompli*, rather than the destruction of its enemy or an outright victory and where the strategy aims at escalation control throughout the duration and spatial dimensions of the conflict.

For obvious reasons Russia’s nuclear strategy and the conditions under which nuclear use might be entertained have been kept consistently opaque. There is good reason to believe that it still is a first strike strategy despite whatever has been written in its recent doctrines and in spite of the considerable improvement in Russia’s non-nuclear deterrence capabilities during the last 5 years.⁴⁷ Indeed, the option of pre-emptive nuclear strikes appears to have real support among many members of the military-political elite.⁴⁸ The recent deployments to Crimea and Kaliningrad reinforce that conclusion. It probably is a first strike capability or at least the threat of one because Russia will lose if the allies are prepared to retaliate by going nuclear in response to a Russian nuclear strike.

Russia's early warning system has been in horrible shape and, until recently, Russia had no satellites that could track nuclear launches. Their first satellite with this capability, Cosmos-2510, was launched in November 2015 and in the orbit-testing mode at the time of this writing. Essentially, Russia only has radar early warning that can detect missiles only a few minutes before impact.⁴⁹ This leaves Russia in a very vulnerable position and unlikely to initiate what it knows will be a nuclear exchange. Its early warning systems were down at least from June through November 2016. Therefore, it has to threaten to go first in the belief that it can intimidate the West into non-resistance. For now, it is less likely that it could actually fight a nuclear war, let alone prevail in one.⁵⁰ There also are reasons to believe that Russia's missile defense program suffers from problems that reduce its effectiveness, and because its nuclear weapons are relatively difficult to maneuver, they are relatively easy targets.⁵¹ However, there are many recent reports pointing to accelerating capabilities in counter-space operations against U.S. assets.⁵² These facts suggest that Putin is practicing nuclear blackmail. But Putin also realizes that nuclear use, if it leads to retaliation by nuclear forces, means guaranteed destruction for Russia.

Given the formulation of Russia's overall strategy discussed earlier, it is therefore clearly misconceived to argue, as do so many Western writers, that Russia's nuclear strategy is simply to escalate (i.e., use a nuclear weapon in a first strike mode) in order to de-escalate (i.e., force NATO [or China] to come to the bargaining table). This line of thinking allegedly imputes to Russian leaders the belief that, if they follow this course of operation, their adversaries will be so stunned as to have to call off a war and negotiate, thereby allowing

Russia to harvest the gains of aggression achieved by moving first. It is unlikely, therefore, that Russia believes it can prevail in an actual nuclear war. Russia may believe it can intimidate the West into not replying to a first strike, or, by using nuclear blackmail, force a pre-emptive surrender. Therefore, we argue that, given the framework we have laid out, Russian nuclear strategy is much broader and more pervasive. The intention of the strategy is for Russia to control the entire ladder of escalation (i.e., to gain and retain escalation dominance through every stage of the crisis).⁵³ This could mean nuclear first use in the misguided belief that they could prevail by blackmailing nervous European or American governments. As James Howe recently observed:

It is apparent that Russia is developing a spectrum of nuclear weapons with tailored effects and the means to deliver them which can maintain escalation dominance all along the conflict spectrum—from “de-escalating” conflicts to conducting theater/strategic warfare for vital national objectives to major nuclear warfare up to the most destructive levels where the survival of the state is at risk.⁵⁴

Moreover, Howe argues, in opposition to some of the arguments advanced earlier, that based on Russian nuclear programs and rhetoric, it appears that Moscow believes it could fight and actually win (in some meaningful sense) a nuclear war.⁵⁵

This strategy of trying to pull off a *fait accompli* backed by nuclear weapons to deter NATO from the outset of a crisis makes considerable sense for Russia from its perspective. As Williams points out:

Russia has sufficiently strong conventional force to make a land grab on its periphery before NATO will be able

to respond. The land grab will build on earlier stages of escalation in generating public support and utilizing regional military assets. However, this conventional force does not have the longevity to withstand a decisive and drawn out NATO response, largely due to the transportation and infrastructure problems. Therefore Russia must seize territory quickly. Then, in order to deter NATO intervention and maintain any geographic gains, Russia turns to nuclear coercion.⁵⁶

Similarly, Gustav Gressel agrees that the dominant fact is that Russia could start a war against its neighbors, or even NATO, but not sustain it. Gressel also agrees this fact will be the prevailing paradigm for at least another decade because Putin's system cannot survive without placing Russia in a state of constant cold war vis-à-vis the West.⁵⁷ As he and others have observed, that situation is fraught with the kind of misperception and cognitive failures of the opposing side that could lead to a much bigger war, particularly given the emphasis on overwhelming force to achieve a quick and decisive victory as in countless wars before today.⁵⁸

The ratcheting up of Russian defensive capabilities in Syria and the clear intent to expand them further into the Middle East also suggests that Moscow would react in analogous fashion to an attack on its Syrian-based and Mediterranean forces. Russia would see that as a prelude to a broader invasion of territory that it considers to be Russian (i.e., Crimea). Because Russia's strategic culture also contains a bias toward using a nuclear strike as a preemptive measure as well as a threat, such action might be used to deter a NATO counterstrike even in a theater outside Russia (e.g., Syria).⁵⁹ This contingency might well then trigger the pre-emptive option mentioned earlier.⁶⁰ Moreover, to

secure the Black Sea, NATO would also have to attack Moscow's integrated air defense and long-range strike capabilities in the Caucasus and even in the Caspian Sea inasmuch as those capabilities have already been displayed in Syria and possess the capability and the striking range to hit European targets. These considerations reinforce the supposition that Moscow has embraced or is moving to a bastion strategy for the deployment of its naval, and in some respects, its air and air defense forces, in ways that are consistent with its formidable integrated air defense system and the old Soviet bastion strategy as well.⁶¹ As Finnish defense analyst Stefan Forss has communicated to this author, the recent deployments of the Iskander in the Baltic and Crimea may represent an attempt to camouflage the deployment of the Iskander-M as a bastion missile in the Baltic, a move that is consistent with using cruise and potentially nuclear missiles as part of a new version of the Soviet bastion strategy.⁶² Similar considerations may also be present in the Russian Far East regarding the Navy bases there.⁶³ In other words, any such attacks on territory that we, but not Moscow, deem to be non-Russian might be seen in Russia as attacks warranting an escalatory counter-response (e.g., a nuclear riposte).

Indeed, we and virtually everyone else have argued that hitherto Russia's strategy has been one of preferring and preparing to fight limited wars on its periphery to achieve a rapid fait accompli while using nuclear weapons as a force for deterring and dissuading NATO from acting. Newer evidence, as suggested earlier, raises the possibility that Russia may be thinking of at least hedging against the future possibility of, if not actively considering prospects for, fighting protracted wars that entail the mobilization of

vast Russian resources. This possibility fits within the parameters of Covington's framing of Russian strategy and the trends discerned by Finch, Golts, Andrew Monaghan, and this author, which cannot be summarily ruled out as a potential Russian operation.⁶⁴ Since 2009, if not earlier, Moscow has aimed to impart a new mobilization quality to the civil administration and Ministry of Interior Forces (VVMVD). We have seen such phenomena in previous military exercises as well. Other efforts to mobilize state economic and financial organizations were also observed during the exercises held in August 2016.⁶⁵ These actions strongly suggest that Russia is at least hedging against the possibility of having to fight protracted wars. They could also point to a revision of thinking about future war that expects prolonged wars which mandate the mobilization of more branches of the entire state and society than has hitherto been the case.⁶⁶

Further adding to the risks on the Russian side is the fact that throughout Russian history, protracted war, often arising from such a misperception of a quick and decisive victory, invariably puts the state's or political system's survival at risk. The current fighting in the Donbass exemplifies this process. As Covington observes, for Russians, even in a limited war, the entirety of the state is engaged.⁶⁷ Those conditions of the state being placed at risk are precisely those stated in Russia's national security and defense doctrines as justifying nuclear use.⁶⁸ This is particularly true when the successful conduct of such supposedly quick and decisive wars and conflicts is the precondition of the system's survival. Therefore, the nuclear threat does not come into play after having achieved strategic success but throughout all phases of the conflict, including premilitary ones.

In fact, it is quite possible that Moscow might launch short-range, tactical, or low-yield nuclear weapons (once they are proven to be usable) against NATO or U.S. targets in what might be considered the initial period of the war (i.e., as NATO begins to mobilize for the defense of the state that has been attacked). Given the traditional Soviet and Russian emphasis on the initial period of war and upon attaining strategic dominance and surprise, then a nuclear use option cannot be summarily excluded from consideration. In other words, Russia might even use nuclear weapons pre-emptively to short-circuit a NATO defense since Russia realizes a prolonged war would be counterproductive, especially should the war go nuclear.⁶⁹ Moreover, in Russian history, protracted wars put the state under enormous and sometimes excessive strain. If the continuation of the regime is in danger, this meets the doctrinal language in Russia's 2014 and 2015 defense and national security doctrines to justify nuclear use.⁷⁰ We are not just dealing here with hypotheticals. We must also admit that considerable progress has been made by Moscow in realizing its strategy to immunize itself against any potential NATO operation while it expands the "envelope" of its capabilities and their geographical range.

Some Russian generals and leaders have already called for placing language in the defense doctrine or in the classified nuclear annex language that would spell out the conditions under which Russia might launch a pre-emptive nuclear strike.⁷¹ Similarly, in 2009, Russian National Security Council Secretary Nikolai Patrushev revealed Russian nuclear doctrine provided for the first and even pre-emptive use of nuclear weapons in local and regional wars, something not evident on its face.⁷² It also appears that Russia has simulated such

operations (e.g., a 2013 aerial exercise that simulated a nuclear attack on neutral Sweden).⁷³ Russian spokesmen do not shy away from making nuclear threats (e.g., to Norway and Denmark). Likewise, recent official statements expressly say that Russia regards such weapons as could be used in this pre-emptive attack like TNWs or low-yield high-precision nuclear weapons as destabilizing actions that inherently lower the threshold for nuclear strikes. Commenting on the recent announcement that the United States is developing the B61-12 TNW, Deputy Foreign Minister Sergei Ryabkov recently said:

As soon as these plans emerged, we said that this is about creating a device that, according to publicly available information, will be relatively higher-precision-but lower-yield compared to the existing types of such weapons in the US arsenal. This means that the threshold for use of such ammunition could theoretically be lowered, which of course destabilizes the situation to a certain extent.⁷⁴

It should come as no surprise that many Chinese observers of Russian nuclear doctrine and strategy have observed that, since 1993, Russia has changed its posture from no first use to first use, and now to pre-emption by abandoning the no first use pledge in 1993. Russia also declared in 1997 and 2000 that nuclear weapons would deter conventional conflicts and invasion, ordering the expansion of TNW production in 1999; also, in 2006 and 2010, Russia gave statements citing nuclear deterrence as a national security pillar.⁷⁵ The coincidence of nuclear drills and articles suggesting a strategy of pre-emption in conjunction with the recent Kavkaz-2016 exercises in and around the Black Sea were also correlated with the mobilization of civil authorities.⁷⁶

Under these conditions, for Russia, the attainment of decisive strategic success in the initial or early phases of the war has become an even more demanding requirement. Russian nuclear strategy, contrary to far too much Western misunderstanding, is not merely escalating to de-escalate if the tide of conflict goes against Russia. The purpose of the strategy is to obtain escalation dominance as quickly as possible and hold it throughout the crisis in all of its stages in order to intimidate adversaries against resisting conventionally as well as by nuclear means evidently with the intention of blackmailing targeted states into submission. Moscow hopes to deter not only conventional responses to its aggression but also impose escalation control throughout all of the crisis phases. Conversely, this Russian strategy makes the necessity for a pre-positioned, robust, conventional deterrent all the more critical for NATO, because it is quite conceivable that Moscow could strike first and hard and, then, either threaten to go nuclear or actually do so to preempt any effective NATO conventional response. Therefore, for NATO, the primary strategic objective must go beyond merely deterring an attack and Moscow's efforts to use nuclear coercion to retain a prior *fait accompli*. NATO's primary strategic objective must be to retain escalation dominance from the start, so that Moscow will not think of launching "a bolt from the blue" because it knows very well what might then occur, and that its ability to launch conventional strikes is therefore severely compromised by the emplacement of a genuinely robust NATO conventional deterrent. Equally importantly, a robust conventional deterrent, backed up by the credible threat of nuclear forces, negates nuclear blackmail and much of Russia's strategy.

This escalation dominance includes striking first with nuclear weapons to force a cessation of enemy operations, but it also comprises the use of nuclear threats from the outset of a crisis to inhibit and deter any consideration of any NATO counter-operation. Clearly, that is a much more preferable and much less dangerous course of action for Russia to contemplate or to initiate. It also owes much to the concept of dissuasion as well as deterrence. While nuclear weapons in general, and TNWs, in particular, serve to compensate for conventional inferiority that would manifest itself over time, in fact, Russia—according to NATO—possesses a large advantage over NATO in both the Baltic Sea and Black Sea theaters, and could deny NATO access to both areas and inflict serious casualties to NATO personnel and systems.⁷⁷

Russia's thinking about nuclear use also ties the use of these weapons seamlessly to conventional scenarios. Russia alone will decide whether to use nuclear weapons during a contingency, and when and where to do so. Thus, Russia creates considerable flexibility for its strategic leaders to use whatever conventional or nuclear weapon is deemed necessary for any situation, but the nuclear option will always be present and well advertised.

Accordingly, the overall readiness of the Russian armed forces and its nuclear forces are reaching a higher level, and are much nearer to the possible battlefield without any thresholds. Not only does this mean Russia can act proactively with nuclear weapons if it so chooses, but it also means that "Russian nuclear weapons can be assessed as a possible additional element in a battlefield where only so-called conventional weapons are perceived to be used."⁷⁸ It is this constant threat of using nuclear weapons to win

a war—and Russia’s nuclear buildup is so large that it makes no sense unless military planners believe that nuclear use or the threat thereof will allow Russia to win a war, even a nuclear war—that also mandates the corresponding buildup of conventional assets that we now see occurring. In other words, conventional and nuclear scenarios no longer appear to have the proverbial firebreak between them that we saw during the Cold War. Or as the paper by Finnish Lieutenant Colonel Pentti Forsström argues:

In this way, the content of the concept of traditional strategic deterrence is broadened to cover both Russian nuclear and conventional assets. On the other hand, the abolishment of the restrictions for the use of nuclear weapons means that the dividing line between waging war with conventional or with nuclear weapons is vanishing. When the principle of surprise is connected to this idea, it seems that Russia wants to indicate that non-strategic nuclear weapons could be regarded as “normal” assets on a conventional battlefield. This is the basis upon which Russia regulates the level of deterrence for example in the Kaliningrad exclave. By introducing the concept of pre-emptive strike to its military means, Russia is trying to enhance its non-nuclear deterrence even further.⁷⁹

Thus, it is not surprising that notwithstanding NATO’s conventional superiority (at least in the initial stages of a conflict), Moscow’s priority programs in defense spending remain nuclear ones, suggesting, *inter alia*, the readiness to entertain first use scenarios or the threat of them or the threat of pre-emptive nuclear strikes to dissuade NATO from even thinking of resisting aggression.⁸⁰

This assessment of Russia’s nuclear strategy, namely to control the entire escalation ladder from start to finish of a crisis, has enormous importance for any Western planning and scenarios. First, it is fully

consonant with the numerous aircraft and submarine probes and overt threats to countries like Denmark that we have seen over the last several years:

In March 2015, Russia's Ambassador to Denmark Mikhail Vanin made, perhaps, the most explicit of the nuclear targeting threats: "I don't think that Danes fully understand the consequence if Denmark joins the American-led missile defense shield. If they do, then Danish warships will be targets for Russian nuclear missiles."⁸¹ Since the beginning of Russia's aggression in Ukraine, the focus of Russian nuclear threats has been on deterring a NATO counter attack.⁸² At a 2015 NATO meeting, then-Secretary of Defense Chuck Hagel denounced Russia's "increasingly aggressive military actions, such as its recent flight of nuclear-capable bombers near British airspace over the English Channel."⁸³ In his incident, a Russian bomber was reported to be carrying a nuclear missile and simulated an attack on a UK [United Kingdom] submarine.⁸⁴

Second, it is clear that these threats aim to preclude NATO members from even contemplating resistance to Russian aggression, let alone actually deploying forces or participating in conventional combat operations. The recent manifestations of bomber runs by Russian planes in both the Atlantic and Pacific Oceans highlight this possibility, as do the many reports of the proximity of Russian submarines to international cables in the Atlantic and off Syria's coast.⁸⁵ Third, this discussion confirms that nuclear weapons are not just compensations for conventional inferiority (which may be diminishing in any case), but they are also anti-access/area denial (A2/AD) weapons par excellence. Fourth, these threats are intended to raise the likely possibility of first strike operations at some point in the conventional battle at a time and place deemed necessary by Russia. Fifth, Russian nuclear strategy

is part of a larger military strategy that is intended to maximize Russia's freedom of action in undertaking conventional or even sub-conventional military operations (e.g., cyber) against its targets without risk, or with minimum risk.

The papers presented at the conference also point in similar directions and undermine the complacent and even ignorant hypotheses about Russia that dominated so much Western discourse and are still far too present. As Timothy Thomas shows, Russia's comprehensive deployment of cyber and information technologies is intended as much to impose strong information control on the Russian population, as it is to wage information wars abroad. Indeed, Thomas shows, as this author has also written, that Russian IW begins at home in an attempt to suppress any organized questioning or dissent from the regime's policies and priorities and is thus an instrument of domestic counterinsurgency as well as offense abroad.⁸⁶ It is also used to develop new, even exotic, and certain "asymmetrical" techniques, tactics, and weapons for use abroad. It should be obvious to all that in the U.S. election campaigns, the United Kingdom's Brexit election (apparently), and France and Germany's 2017 elections, Russian IW systematically aimed to unseat candidates Moscow deemed to be too anti-Russian in an attempt to insert others, like U.S. President Donald Trump, into power. To what degree it succeeds is moot despite the votes for Trump and Brexit, but the efforts are undeniable.⁸⁷

Similarly, Keir Giles cites former Director of National Intelligence James Clapper concerning the increased boldness and public deployment of such weapons even when unmasked that is now characteristic of Russian operations, "Russia is assuming

a more assertive cyber posture based on its willingness to target critical infrastructure systems and conduct espionage operations **even when detected and under increased public scrutiny** [emphasis added].”⁸⁸ Moreover, Giles not only finds that Moscow has now learned that force is its own reward and works against a distracted and divided West but also that, “Overall, the conclusions from close observation of Russian military preparations are unsettling. In multiple domains, Western militaries must leave behind the automatic presumption of tactical and technological supremacy or even superiority.”⁸⁹

Russia’s Syrian intervention provides grounds for more assault on what is and has been the conventional wisdom. First, the very fact of it demonstrates just how off the mark the comments were that Russia could not project power beyond the former Soviet borders and do so at a sustainable course. Second, this operation (like Ukraine) came as a complete surprise to Western governments despite Russia’s very visible preparation for it (acquiring tankers and overflight rights), indicating, as in Ukraine’s case, the real failure of Western intelligence and policy on Russia. When this is allied to the fact that Russia’s snap exercises catch us by surprise in Europe, Syria, and Ukraine, they reveal a yawning and highly dangerous gap at the heart of NATO military capability.⁹⁰ Third, beyond strategic surprise and intelligence and policy failures, this intervention is clearly aligned to a broader strategy not only to coerce the West into recognizing Russian gains in Ukraine but also in executing an overall Russian military strategy for the greater Middle East, not just Syria. The fact that Russia had acquired bases in Iran (although it had to give them up when it revealed them prematurely), it now shares a base with Iran in Syria, and

is clearly discussing acquiring bases in Egypt, Russia already has bases in Cyprus and Syria, indicates the long-term presence of Russian forces in the Middle East and the Mediterranean is now a *fait accompli*.⁹¹ These facts, plus Stephen Blank's outline of Russian lessons learned, goals, and gains in Syria indicate that we are dealing with a Russian strategy in the Middle East and in Europe, because the Mediterranean Squadron now being based in the Eastern Mediterranean and around Syria will, undoubtedly, have European missions as well, in tandem with the Black Sea Fleet and other forces there.⁹²

These observations relate to the larger point that, despite the endless and complacent remarks of Western analysts, Putin is merely a tactician who adroitly seizes opportunities and makes it up as he goes along. The West is confronting a whole-of-government national security strategy which is not only tactically ruthless and adroit but also operates in service of strategic goals. Few analysts want to accept this, but the evidence of Russian policies taken in their totality should obligate us to consider this point and to do so seriously without preconceived prejudices.⁹³ Therefore, the fact that we are confronting an overall strategy in Europe and the Middle East, if not elsewhere, also impels us to consider the regional deployments and plans of Russian armed forces with equal seriousness.

For example, Katarzyna Zysk details the extent of Russia's military deployments through 2016. As she points out, while the primary mission of Russia in rebuilding its Arctic defenses may have been connected to the opening up of the Northern Sea Route (NSR) and protection of energy and other facilities there, it has now been fully integrated into the spiraling and expansive threat perception that, if Russia

does not develop the Arctic, other states will usurp its natural resources. Putin told the Security Council in April 2014:

There is a growing interest in the Arctic on the part of the international community. Ever more frequently, we see the collision of interests of Arctic nations, and not only them. . . . We should also bear in mind the dynamic and ever-changing political and socioeconomic situation in the world, which is fraught with new risks and challenges to Russia's national interests, including those in the Arctic. . . . We need to take additional measures so as not to fall behind our partners, to maintain Russia's influence in the region and maybe, in some areas, to be ahead of our partners.⁹⁴

Although this assessment is not broadly shared in other Arctic states, the Russian authorities as well as intelligence and expert circles alike, have argued since the early 2000s that the expected growth in the global demand for energy combined with declining production worldwide may lead to rivalry. Furthermore, these conditions could become a source of potential future competition with international corporations as well as state actors for declining energy reserves, particularly in the Arctic, Central Asia, the Middle East, the Barents Sea, and the Caspian Sea. In the assessment of Presidents Putin, Dmitry Medvedev, and the General Staff, such competition may eventually lead to a conflict.⁹⁵ Russia, the reasoning goes, with its enormous share of global natural resources, in the future may become an object of a large-scale expansion.⁹⁶ In the view of the Russian General Staff, it will be one of the most important challenges of Euro-Atlantic security.⁹⁷ General Valery Gerasimov, the Chief of the General Staff, assessed that the likelihood of the threat may increase by 2030.⁹⁸ In addition, as Keir Giles and Mark Smith

wrote in 2007, “Russia views the Arctic in very different terms from all other littoral and nearby states, and takes any ‘foreign’ interest in the areas as an indication of hostile intent which may require a securitized response.”⁹⁹

Even though the Arctic remains peaceful today, and most analysts have commented on this point hoping that it remains the case, the military buildup depicted by Zysk, in tandem with everything else that is happening, cannot but inflame allied suspicions. Those anxieties were already on display in this author’s conversations with Norwegian officials in 2014 and are more readily discernible in the movement of 300 Marines to Norway, increased Norwegian defense spending, and a new defense agreement with the United Kingdom. Inasmuch as the centerpiece of Russian defense forces here remains the Northern Fleet, one of the nuclear fleets holding SSBNs (nuclear-powered ballistic missile submarines) and their bases, should conflict move to the Arctic from Europe or another theater, there is a real escalation potential that must be taken into account. Because the threat assessment currently held in Moscow is so extravagantly out of alignment with the reality of other Arctic states’ capabilities and reflects a generally paranoid stance, we cannot count on the Arctic region remaining a zone of peace. Furthermore, as Zysk points out:

The extensive military development plans and investments underline Russia’s interest in, and long-term thinking about, the Arctic as a part of the country’s broader military strategy and economic future. Despite the worsening economic and financial situation, Russia continues to prioritize military modernization. The political leadership has invested so much prestige in Arctic development that any significant scaling down of ambition could play poorly in the domestic narrative.

Furthermore, the domestic defense industry interests are vested and committed to the large-scale, expensive and long-term investments in the Arctic.¹⁰⁰

Zysk also observes that:

Although Russia acknowledges and prepares for Arctic-specific challenges and security threats, the armed forces in the region are nonetheless closely integrated into the country's broader defense system and should not be seen as a force limited to the Arctic. As the large-scale military exercises and military operations in recent years have demonstrated, the military units and capabilities in the Arctic are liable to be activated and used in a potential future confrontation or conflict scenarios in other regions. With their increased mobility, armed forces deployed in the region can be transferred rapidly outside of it as needed. The trend of drawing on resources from JSC [Joint Strategic Command] North to support operations in other Russian military districts and abroad is likely to continue in part also because Russia's military capacities remain limited, despite the ongoing modernization.¹⁰¹

For this and many other apparent reasons, we obviously cannot merely accept Russian protestations of goodwill in the Baltic; even Arctic forces have rehearsed operations that could be tailored to the Baltic.¹⁰² The endless attempts to suborn Baltic governments, the overflights, submarine penetrations, espionage, energy blackmail, nuclear threats, and overall military buildup there belie Russia's professions of good faith. Moscow may now be demanding a demilitarization of NATO's presence there, but since NATO in no way is capable of threatening the superior Russian forces in the Baltic that now have nuclear-capable Iskander missiles, it seems clear that Moscow wants the Baltic region to exist in a perpetual state of vulnerability and NATO self-denial, if not a lack of cohesion.¹⁰³ Furthermore, it

is still the case that Russia has conventional superiority in that theater and might well use nuclear weapons in a first strike against NATO forces there, as Samuel Gardiner makes clear in his chapter.¹⁰⁴ Therefore, the imperative of robust conventional defense forces and plans to use them in the Baltic effectively is urgent.

Along the lines presented by Gardiner, Forsström concludes that Russian military behavior in the Baltic is no longer reactive but actually proactive. Furthermore, he reinforces from a different angle many of the concerns, if not anxieties, expressed earlier about nuclear issues based on an examination of Russian military activity. He observes that:

The primary goal of the reform of Russian Armed Forces is to improve the readiness for action. There is also a collateral aim, which can be defined as the improved and enhanced non-nuclear deterrence. This deterrence has also been strengthened by cutting away the self-made restrictions for the use of the nuclear weapons. This means that despite of their role in power politics, in principle they can be used according to Russia's own judgment and decision. Russia defines solely if or when its national existence is threatened. By this way, the content of the concept of traditional strategic deterrence is broadened to cover both Russian nuclear and conventional assets. On the other hand, the abolishment of the restrictions for the use of nuclear weapons means that the divisive line between waging war with conventional or with nuclear weapons is vanishing. When the principle of surprise is connected to this idea, it seems that Russia wants to indicate that non-strategic nuclear weapons could be regarded as "normal" assets on a conventional battlefield. This is the basis [of] how Russia regulates the level of deterrence for example in the Kaliningrad exclave. By introducing the concept of pre-emptive strike to its military means, Russia is trying to enhance its non-nuclear deterrence even further.¹⁰⁵

Turning south toward the Ukraine and Black Sea region, James Sherr not only points out the historic Russian tendencies to embrace worst-case assumptions as a basis of its planning and policy and the historic definition of security as control of space in proximity to Russia (regardless who occupies or possesses that space), but he also refers to the deliberate policy of mobilization that is being carried out, even though it may be economically dysfunctional, as being a state priority. He also observes that, in the context of Russian thinking and practice, the Ukrainian operations of 2014 were, in fact, the fruit of long-term policies and plans. Sherr notes that, while Moscow's intelligence and strategy in Ukraine failed and have reached an impasse, the operations in and around Ukraine conform to larger strategic motifs in Russian planning such as deterrence through intimidation (*Ustrashenie*) and contain within themselves the seeds of potential future wars or use of the Black Sea as a key strategic theater (e.g., in Syria).¹⁰⁶ Thus, we may not have seen the end of Russian military operations centered on the Black Sea.

These considerations force us to consider the role of the Russian Navy in greater depth. Jacob Kipp duly presents a grand historical excursus of the strategic dilemmas that a Russian Navy and Government must face since Russia so strongly identifies with being a continental power. The answer to the question of what is the Navy for, and why Russia needs one, has varied greatly since Peter the Great first created the Russian Navy. However, as Kipp emphasizes, the added reach and utility that the Navy adds to a primarily continental power has triumphed under Putin. The Russian Navy, for all its multiple problems, continues to be a vital arm of the land forces in helping them seize

naval flanks or attack naval flanks of recalcitrant Commonwealth of Independent States (CIS) members (e.g., Georgia and Ukraine). We are going to see in each of the other theaters where it is deployed—Syria and the Mediterranean, Arctic, Baltic, and Pacific theaters—not only missions of strategic deterrence and homeland defense but also for the deterrence and exclusion of NATO from the Black or Baltic Seas, thereby isolating those seas as well as their littorals. In other words, no defense plan created for NATO, for any of these “inland seas,” or for the Mediterranean can afford to ignore both the Russian Navy and its use as part of a combined arms A2/AD strategy.¹⁰⁷

Neither is it likely that we will soon see an end to the 20 years of conflict in the North Caucasus. Although under Ramzan Kadyrov, Chechnya has been forcefully pacified; however, the fires of conflict burn steadily in the North Caucasus, and it is clear that this war will not end anytime soon.¹⁰⁸ Thus, Ariel Cohen duly observes that the current fighting is in some sense merely the latest iteration of wars that have gone on for 250 years in resistance to Russian colonization and misrule in the North Caucasus. Now this war has achieved a global resonance because it is inextricable from the larger war of the Islamic State in Iraq and Syria (ISIS) against Western powers and is thus part of the global jihadist campaign. The movement of North Caucasian terrorists to Afghanistan and Syria renders this a transnational, if not global, issue, yet it is clearly one for which Moscow has not found an answer and, given its system, is not likely to do so anytime soon. Consequently, the repercussions of this ongoing conflict connect not only to Syria but also Central Asia. It almost goes without saying that the course of this generation-long insurgency will reverberate as well

around the Kremlin, given the role played by Ramzan Kadyrov as warlord of Chechnya and his quasi-independent army in Russian politics.¹⁰⁹

The connection to Central Asia is important because Moscow has placed its credibility on the line here through the Collective Security Treaty Organization (CSTO), and by virtue of the fact that some of its biggest exercises clearly are advertised as being germane to the threat of terrorism in Central Asia. Isabelle Facon quotes Defense Minister Shoigu to the effect that the Tsentr-2015 exercises, held from August 18 to September 20 in Russia and Kazakhstan, and the staged intervention in Central Asia under the auspices of the CSTO, were an opportunities for the Russian armed forces to perform:

the full range of measures to prepare and conduct combat action in the Central Asia strategic area. For the first time in 25 years, we have practically resolved the task of creating and using a powerful strike aviation group. The massive air strike involved 150 craft, and 800 paratroopers were landed. During the exercises, the force grouping fully confirmed their readiness and ability to ensure Russia's military security in Central Asia.¹¹⁰

In June 2014, a snap inspection was undertaken at the level of the Central Military District and involving 65,000 troops from 4 military districts, more than 180 aircraft and 60 helicopters were analyzed by senior specialists of the Russian military as being "linked to Russian concerns over security in Central Asia following the completion of the International Security Assistance Force (ISAF) drawdown in Afghanistan." Forces based in Kyrgyzstan and Tajikistan were placed on alert.¹¹¹

Such statements highlight the extensive actual involvement as well as potential involvement of Russia's armed forces in Central Asia should an insurgency

or war convulse the area. Just as North Caucasian development could rebound on Central Asia, insurgency, succession crises, the fall of Afghanistan, or other events could just as easily reverberate throughout the North Caucasus and thus Russia proper.¹¹² Furthermore, as Sébastien Peyrouse outlines, Russia has an extensive military infrastructure in Central Asia which creates binding—or as Russia and its partners perceive to be binding—commitments to the defense of the area. These commitments are now talismans of Russia's great power status. Indeed, Moscow is the most important military player in Central Asia and eclipses even local governments in its capacities there. To abandon them despite the visible Russian reluctance to fight a terrorist war in Muslim areas with land forces would amount to a stunning loss of credibility and status, if not also the loss of effective leverage over Central Asia and other areas.¹¹³ If Russia, for whatever reason, was to shirk its commitments, the existing connections in defense between Central Asian states and governments like India, China, and the United States might acquire new relevance or prominence at Moscow's expense. Although the United States is retreating from Central Asia and India faces extremely difficult obstacles in projecting military power into the area, there are signs that China is developing a growing interest in protecting its investment in Central Asia, an interest that will grow as its Silk Road or One Belt One Road project (OBOR) comes into being.¹¹⁴ A real Chinese presence here would register as a major transformation in the overall Eurasian (not just Asian) balance of power at Russia's expense.

All these considerations force us to consider what would be the best Western (i.e., not only American) response to the Russian challenge, a threat that clearly

goes beyond mere military force, and the threat of its use. As we have noted, one problem is the intelligence and policy failure that has led us to be either too complacent or not strategic in our response to what Daniel Gouré calls:

elements of classic authoritarianism, merged with the predatory behavior of a criminal organization and the paranoia of a police state. In essence, in order to understand how Moscow today perceives and responds to the outside world it is necessary to look inward at the structure and operation of Russia's ruling circles.¹¹⁵

Thus, Russia epitomizes Clausewitz's chameleon, as it presents a multi-dimensional threat at all times that is synchronized across multiple strategic domains, not just the military one. Classic deterrence, though necessary, clearly does not suffice here.

While we must recognize the necessity for a multi-faceted strategy where the armed forces play only part of the role, this volume is devoted to that aspect or element of the challenge we face, so a sober awareness of both the challenge we face and the cards in our own hand are necessary. As Gouré emphasizes:

Russia is playing a very weak hand. There is no way that Moscow can win a protracted Cold War or even a conventional confrontation with an Alliance that has 20 times Russia's [gross domestic product] GDP and four times its conventional military power. This is a major reason that it places such heavy reliance on its nuclear forces for deterrence and on threats to use nuclear weapons to dominate a local crisis. It hopes that should such a crisis occur, NATO will accept a small defeat rather than risk a big war. It is primarily with the goal of intimidation in mind that Russia has devoted so many scarce resources to developing advanced ballistic and cruise missile capabilities. This is also why it has gone to great effort and expense to launch cruise missiles against

the Islamic State of Iraq and Syria (ISIS) targets from both the Caspian and Eastern Mediterranean. The real target of these attacks is the will of NATO's leadership.¹¹⁶

In the second half of his chapter, Gouré outlines a comprehensive military-political sequence of moves that NATO—again, not just the United States—must take to meet this challenge. Indeed, there are signs that the election of Trump as President has begun to concentrate European leaders' minds on taking the necessary robust steps needed to augment the visible defense capabilities of NATO's European members.¹¹⁷ Action along these lines is essential because, as Thomas-Durell Young points out, the years from 1989 to 2014 were, for East European (as well as West European) militaries, the “years the locusts have eaten.” As Young points out, despite a generation of talk and haphazard action to reform all the former Warsaw Pact militaries, none of them can be said to be truly reformed or capable of defending themselves. This failure is no longer supportable, and here again the Russian challenge must serve as a spur to galvanize effective action across the board in NATO to create, deploy, and sustain both the forces necessary to conduct effective conventional deterrence of the Red Army and the accompanying infrastructure needed for those purposes.¹¹⁸

In other words, as Young says, we need “honest defense.”¹¹⁹ This includes an unsparing look at the real threats created by the current problem of inadequate NATO armed forces, overcoming the chasm between “ways and means,” and the end of defending Europe and deterring Russia that is NATO's canonical mission. We should not forget that this also means, as we have noted throughout this chapter, the repair of all the defects in intelligence and policymaking. Indeed, as

Andrew Michta emphasizes, the security environment has undergone a lasting change that requires much more than a temporary fix. Even well before Trump's election, it was increasingly insupportable that Europe left the business of defending it up to Washington, while it ignored or minimized the real threats to its security.¹²⁰

The new political constellation generated by this election as well as by the growing acceptance of the potency of the Russian threat hopefully should induce governments throughout NATO to understand that we now live in a transformed strategic environment from which there is no escape or way back to the 1989-2014 period. In this new environment, failure to defend oneself invariably invites a military and strategic response of utmost negativity. The notion that Europe can be strictly a "civil power" (*Zivilmacht Europa*) now stands exposed as a mirage, if not a fantasy. Similarly, the United States may legitimately continue to demand more of its allies, but it cannot use that demand as an excuse to opt out of its responsibilities and, even more importantly, its historic interest in the security of both the European and, for that matter, Asian landmasses. Not only does doing so invite a return to the world politics of the 1930s and 1940s; it also undermines the democracy here and abroad and the overall progress in world politics and civilization that our allies and we have spent so much to build.

Readers will therefore elicit these and other conclusions from this book. Those conclusions are sobering and thought provoking, as they should be. However, they are only part of the debate now underway. Indeed, if an examination and consideration of the issues raised here does not lead to effective strategic action, then we have labored in vain. The defense

of national interests may come before the defense of national values. If you fail to defend interests, not only do your values become unreachable, but your interests quickly become unattainable as well. We should not have to learn that lesson a third time.

ENDNOTES - CHAPTER 1

1. Karoun Demirjian, "Lack of Russia experts has some in U.S. worried," *The Washington Post*, December 30, 2015, available from https://www.washingtonpost.com/news/powerpost/wp/2015/12/30/lack-of-russia-experts-has-the-u-s-playing-catch-up/?noredirect=on&utm_term=.03ddbdb00097; Jason Horowitz, "Russia Experts See Thinning Ranks' Effect on U.S. Policy," *The New York Times*, March 6, 2014, available from <https://www.nytimes.com/2014/03/07/world/europe/american-experts-on-russia.html>.

2. House of Lords, European Union Committee, 6th Report of Session 2014-2015, *The EU and Russia: Before and Beyond the Crisis In Ukraine*, London, UK: The Stationery Office Limited, HL Paper 115, February 20, 2015, available from <http://www.publications.parliament.uk/pa/ld201415/ldselect/ldcom/115/115.pdf>.

3. Roger McDermott, "Moscow's Pursuit of Military Strategic Parity with NATO," *Eurasian Daily Monitor*, June 14, 2017, available from <https://jamestown.org/program/moscows-pursuit-military-strategic-parity-nato/>.

4. Patrick Tucker, "Dunford: Without Better Funding, U.S. Will 'Lose Competitive Advantage' In Just a Few Years," *Defense One*, June 13, 2017, available from <https://www.govexec.com/defense/2017/06/dunford-without-better-funding-us-will-lose-competitive-advantage-just-few-years/138632/>.

5. "Russia in Decline," Washington, DC: The Jamestown Foundation, available from <https://jamestown.org/programs/rd>.

6. Timothy Thomas, "Russia's Expanding Cyber Activities: Exerting Civilian Control while Enhancing Military Reform," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016; Stephen

Blank, "Russian Information Warfare as Domestic Counterinsurgency," *American Foreign Policy Interests*, Vol. 35, No. 1, 2013, pp. 31-44; Phillip A. Karber, *Draft: Lessons Learned From the Russo-Ukrainian War*, 2015, made available by the author.

7. Stephen Blank, "The Flight of the Red Phoenix: The Historical Bases of Russian Non-Linear Warfare," Unpublished Paper, Forthcoming.

8. Phil Breedlove, "The Meaning of Russia's Military Campaign Against Ukraine," *The Wall Street Journal*, July 16, 2014, available from <https://www.wsj.com/articles/phil-breedlove-the-meaning-of-russias-military-campaign-against-ukraine-1405552018>.

9. *Russia Military Power: Building a Military To Support Great Power Aspirations*, Washington, DC: Defense Intelligence Agency, 2017, p. 34.

10. *Ibid.*, pp. 52-55.

11. Paul Goble, "Putin Gives National Guard Powers Even NKVD Didn't Have—The Question Now Is Why? Gorevoy Says," *Window on Eurasia -- New Series*, June 5, 2017, available from <http://windowoneurasia2.blogspot.com/2017/06/putin-gives-national-guard-powers-even.html>; Vadim Birstein, "Russia Prepares To Fight Itself," *Russian Retrospective*, June 4, 2017, available from <http://www.vbirstein.com/2017/06/04/russia-prepares-to-fight-itself/>.

12. Michael Kofman, "New Russian Divisions and Other Units Shifting to Ukraine's Borders—Second Look with Updates," *Russian Military Analysis*, August 22, 2016, available from <https://russianmilitaryanalysis.wordpress.com/2016/08/22/russian-units-on-ukraines-borders-second-look-with-updates/>.

13. Marcel de Haas, "Russia's Military Reforms: Victory After Twenty Years of Failure?" *Clingendael Paper No. 5*, The Hague, Netherlands: Institute of International Relations, 2011, p. 17; David M. Glantz, "Foreword," in Roger N. McDermott, *The Reform of Russia's Conventional Armed Forces: Problems, Challenges, and Policy Implications*, Washington, DC: The Jamestown Foundation, 2011; Irina Isakova, *Russian Governance in the Twenty-First Century: Geo-Strategy, Geopolitics and Governance*, London, UK: Frank Cass Publishers, 2004; Irina Isakova, *Russian Defense*

Reform: Current Trends, Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, 2006; Carolina Vendil Pallin, *Defense Decision Making and Russian Military Reform: The Oblovov Approach*, Stockholm, Sweden: Swedish Defense Research Establishment (FOI), 2006, pp. 174-179; Denis Trifonov, "Russian Defence Reform: Reversing Decline," *Jane's Defence Weekly*, June 8, 2005.

14. Stephen J. Blank, "'No Need To Threaten Us, We Are Frightened Of Ourselves,' Russia's Blueprint For A Police State, The New Security Strategy," in Stephen J. Blank and Richard Weitz, eds., *The Russian Military Today and Tomorrow: Essays in Memory of Mary Fitzgerald*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, July 2010, pp. 19-150; Leon Aron, ed., and Mikhail Dmitriev, Evgeny Gontmakher, Lev Gudkov, Sergei Guriev, Boris Makarenko, Alexey Malashenko, Dmitry Oreshkin, Kirill Rogov, and Natalia Zubarevich, auths., *Putin's Russia: How It Rose, How It Is Maintained, and How It Might End*, Washington, DC: American Enterprise Institute, May 2015, available from <http://www.aei.org/events/putins-russia-how-it-rose-how-it-is-maintained-and-how-it-might-end/>.

15. Andrew Monaghan, *Russian State Mobilization: Moving the Country on to a War Footing*, London, UK: Chatham House, May 20, 2016, available from <https://www.chathamhouse.org/publication/russian-state-mobilization-moving-country-war-footing>; Andrew Monaghan, *Defibrillating the Vertikal? Putin and Russian Grand Strategy*, London, UK: Chatham House, October 7, 2014 available from <https://www.chathamhouse.org/publication/defibrillating-vertikal-putin-and-russian-grand-strategy>; Murray Brewster, "Canada Considers European Troop Commitment As CSIS Warns Russia Is 'Mobilizing For War'," CBC News, June 14, 2016, available from <http://www.cbc.ca/news/politics/canada-baltics-troops-russia-1.3635139>.

16. Vitaly Shlykov, "The Economics of Defense in Russia and the Legacy of Structural Militarization," in Steven E. Miller and Dmitri Trenin, eds., *The Russian Military: Power and Policy*, Cambridge, MA: MIT Press, 2004, pp. 160-182; Vitaly Shlykov, "The Anti-Oligarchy Campaign and its Implications for Russia's Security," *European Security*, Vol. 17, No. 2, 2004, pp. 11-128.

17. Michael Kofman, "The Wars of the Future: Russian Defense Ministry's New Modernization Plan," *The Moscow Times*, June 4, 2017, available from <https://themoscowtimes.com/articles/russias-new-military-modernization-plan-a-glimpse-of-moscows-future-forces-58149>.

18. Anders Aslund, "Russia's Output Will Slump Sharply in 2015," *The American Interest*, January 15, 2015, available from <http://www.the-american-interest.com/2015/01/15/russias-output-will-slump-sharply-in-2015/>. Aslund forecast a 10-percent plunge in Russia's gross domestic product (GDP) for 2015. The current judgment was a 3.7-percent decline.

19. Steven Rosefielde, "Russia's Military Industrial Resurgence: Evidence and Potential," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016.

20. Julian Cooper, "Russia's State Armament Programme to 2020," FOI Report FOI-R-4239-SE, Stockholm, Sweden: Swedish Defense Research Agency, March 2016; Richard Connolly and Cecile Sendstad, "Russian Rearmament: An Assessment of Defense-Industrial Performance," *Problems of Post-Communism*, Vol. LXIII, No. 5, 2016, pp. 1-18; Stephen Blank, "Can Russia Sustain Its Military Capability?" Washington, DC: The Jamestown Foundation, Russia in Decline, September 13, 2016, available from <https://jamestown.org/program/stephen-blank-can-russia-sustain-its-military-capability/>.

21. Stephen Fortescue, *Can Russia Afford to be a Great Power?* Sydney, Australia: Lowy Institute, 2017, available from <https://www.loyyinstitute.org/publications/can-russia-afford-be-great-power>.

22. Paul Schwartz, "Russian Science and Technology: Current State and Implications for Defense," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016.

23. Harley Balzer, *Russia's Knowledge Economy Decline: Views From Inside*, Washington, DC: The Jamestown Foundation, September 13, 2016, available from <https://jamestown.org/program/harley-balzer-russias-knowledge-economy-decline-views-from-inside/>.

24. "Putin Aide Ivanov Says Cold War 'A Fact of Life'; US Denies Russian Election Monitors Access," *The Interpreter*, October 24, 2016, available from <http://www.interpretermag.com/russia-update-october-24-2016/>.

25. On the elections, see Stephanie Ruhle, "Newsweek: Russia attempts to influence US election," MSNBC News, November 4, 2016, available from <http://www.msnbc.com/stephanie-ruhle/watch/newsweek-russia-attempts-to-influence-us-election-800966723664>; on Montenegro, see Associated Press, "Montenegrin Prosecutor Says Russian Nationalists Behind Alleged Coup Plot," *The Guardian*, November 6, 2016, available from <https://www.theguardian.com/world/2016/nov/06/montenegro-prosecutor-milivoje-katnic-russian-nationalists-behind-alleged-coup-plot>.

26. M. A. Gareev, *Srazheniya na Voенно-Istoricheskom Fronte (Battles on the Military-historical Front)*, Moscow, Russia: ISAN Press, 2010, p. 729, cited in Major General I.N. Vorob'ev (Ret.) and Colonel V. A. Kisel'ev (Ret.), "Strategies of Destruction and Attrition," Moscow, Russia: *Military Thought*, in English, No. 1, 2014, Washington, DC: Open Source Center, Foreign Broadcast Information Service (FBIS SOV), January 1-March 31, 2014, accessed June 2, 2014.

27. James Howe, "Future Russian Strategic Nuclear and Non-Nuclear Forces: 2022," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016; Mark B. Schneider, "Russian Nuclear Weapons Policy and Programs, the European Security Crisis, and the Threat to NATO," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016.

28. Dmitry Dima Adamsky, "If War Comes Tomorrow: Russian Thinking about 'Regional Nuclear Deterrence'," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016.

29. Schneider, "Russian Nuclear Weapons Policy and Programs, the European Security Crisis, and the Threat to NATO."

30. Aleksandr Golts, "Modernization Vs. Mobilization," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016; Aleksandr

Golts, "The Limits of Russian Military Reforms: Another Lost Opportunity," in Aleksandr Golts and Michael Kofman, *Russia's Military: Assessment, Strategy, and Threat*, Washington, DC: Center for Global Interests, June 2016, pp. 15-19.

31. Roger McDermott, "Russia Uses Syria Operation to Test Weapons Systems," *Eurasia Daily Monitor*, Vol. 12, Iss. 220, December 9, 2015, available from <https://jamestown.org/program/russia-uses-syria-operation-to-test-weapons-systems/>; Vadim Savitsky, "Syrian Operation Reveals Russian Military Equipment's Shortcomings," *The Moscow Times*, October 21, 2016, available from <https://themoscowtimes.com/news/syrian-operation-reveals-russian-military-equipments-shortcomings-55831>; "Russia To Use Syrian Experience In Developing New Weapons," Xinhua News, October 22, 2016.

32. David S. Yost, *NATO's Deterrence and Defense Posture after the Chicago Summit*, Monterey, CA: U.S. Naval Postgraduate School Center on Contemporary Conflict, 2012, p. 21.

33. Stephen R. Covington, *The Culture of Strategic Thought Behind Russia's Modern Approaches to Warfare*, Cambridge, MA: Belfer Center for Science and International Affairs, Harvard Kennedy School, October 2016, pp. 10-11.

34. *Ibid.*, p. 11.

35. General Sir Richard Shirreff, *War with Russia: An Urgent Warning From Senior Military Command*, New York: Quercus, 2016, p. 103.

36. *Ibid.*, p. 104.

37. *Ibid.*, p. 196.

38. *Ibid.*, p. 132.

39. Dragan Stavljanin, "Zubov: Annexation of Crimea as the Anschluss of Austria in 1938," Radio Slobodna Evropa, October 19, 2015; Zara Steiner, *The Triumph of the Dark: European International History 1933-1939*, Oxford, UK: Oxford University Press, 2011.

40. Author's conversations with Frank Hoffman, May 2015.

41. Frank G. Hoffman, "Future Threats and Strategic Thinking," *Infinity Journal*, No. 4, Fall 2011, pp. 17-21; Frank G. Hoffman, "Complex Irregular Warfare: The Next Revolution in Military Affairs," *Orbis*, Vol. 50, Iss. 3, Summer 2006, pp. 395-411; Frank G. Hoffman, "Hybrid Threats': Neither Omnipotent Nor Unbeatable," *Orbis*, Vol. 54, Iss. 3, Summer 2010, pp. 441-455; Frank G. Hoffman, "Hybrid Threats: Reconceptualizing the Evolving Character of Modern Conflict," *Strategic Forum*, No. 240, April 2009; Frank G. Hoffman, "Hybrid Warfare and Challenges," *Joint Forces Quarterly*, No. 52, 2009, pp. 34-39.

42. Shirreff, p. 101.

43. Margarete Klein, *Russia's Military: On the Rise?* Washington, DC: Transatlantic Academy of the German Marshall Fund of the United States, 2015-2016 Paper Series, 2016, pp. 8-9, available from <https://stratcomcoe.org/margarete-klein-russias-military-rise>.

44. Blank, "'No Need To Threaten Us, We Are Frightened Of Ourselves,'" pp. 19-150; Monaghan, *Defibrillating the Vertikal*.

45. Covington, p. 12.

46. Heather W. Williams, "Uncertainty in Escalation: Russian Strategy Interests and Avoiding Nuclear Coercion," Unpublished Paper for this project, 2016.

47. Ibid.; Schneider, "Russian Nuclear Weapons Policy and Programs, the European Security Crisis, and the Threat to NATO"; President of the Russian Federation, *Voennaya Doktrina Rossiiskoi Federatsii (Military Doctrine of the Russian Federation)*, Moscow, Russia: The Russian Federation, February 5, 2010, available from www.kremlin.ru; President of the Russian Federation, *Voennaya Doktrina Rossiiskoi Federatsii (Military Doctrine of the Russian Federation)*, Moscow, Russia: The Russian Federation, December 26, 2014, available from www.kremlin.ru; *Natsional'naya Strategiya Bezopasnosti Rossii, do 2020 Goda (The National Security Strategy of Russia Till 2020)*, Moscow, Russia: Security Council of the Russian Federation, May 12, 2009, available from www.scrf.gov.ru, in English, available from FBIS SOV, May 15, 2009, in a translation from the Security Council website (henceforth NSS); *Natsional'naya Strategiya Bezopasnosti Rossii (The National Security Strategy*

of Russia), Moscow, Russia: Security Council of the Russian Federation, December 31, 2015, available from www.kremlin.ru.

48. Alexander Velez-Green, *The Unsettling View From Moscow: Russia's Strategic Debate On a Doctrine Of Pre-emption*, Washington, DC: Center for a New American Security, April 27, 2017, available from <https://www.cnas.org/publications/reports/the-unsettling-view-from-moscow>.

49. Pavel Podvig, "No Gaps In Early-Warning Coverage As Three Radars To Begin Combat Duty In 2017," Russian strategic nuclear forces, December 23, 2016, available from http://russianforces.org/blog/2016/12/no_gaps_in_early-warning_cover.shtml.

50. See Pavel Podvig, "Early warning," Russian strategic nuclear forces, December 30, 2017, available from <http://russianforces.org/sprn/>; RIA Novosti, "Russia Loses Its Last Early Warning Satellite," Defence Talk, July 1, 2014, available from <http://www.defencetalk.com/russia-loses-its-last-early-warning-satellite-59992/>; Kris Osborn, "Russia's Satellite Nuclear Warning System Down Until November," Military.com, June 30, 2015, available from <https://www.military.com/defensetech/2015/06/30/russias-satellite-nuclear-warning-system-down-until-november>.

51. Dave Majumdar, "One of Russia's Most Advanced Nuclear Missiles Self-Destructed During a Test Flight," The Buzz, blog of *The National Interest*, September 28, 2016, available from <http://nationalinterest.org/blog/the-buzz/one-russias-most-advanced-nuclear-missiles-self-destructed-17869>.

52. Statement of General John E. Hyten, Commander U.S. Strategic Command, before the Senate Committee on Armed Services, April 4, 2017, available from https://www.armed-services.senate.gov/imo/media/doc/Hyten_04-04-17.pdf.

53. Williams implies this but does not say so outright. This is also based on the author's conversations with high-ranking U.S. officials, Washington, DC, 2016.

54. Adamsky; Howe, "Future Russian Strategic Nuclear and Non-Nuclear Forces."

55. Howe, "Future Russian Strategic Nuclear and Non-Nuclear Forces"; Howe's personal communication with the author.

56. Williams.

57. Gustav Gressel, *The Dangerous Decade: Russia-NATO Relations 2014 to 2024*, London, UK: European Council on Foreign Relations, July 5, 2016, p. 5, available from https://www.ecfr.eu/article/commentary_the_dangerous_decade_russia_nato_relations_2014_to_2024.

58. Ibid.

59. Covington, p. 14.

60. Velez-Green.

61. Andrew Fink, "Russia, Iran, and Inland Seas," *The American Interest*, April 15, 2016, available from <http://www.the-american-interest.com/2016/04/15/russia-iran-and-inland-seas/>.

62. Stefan Forss's communication to the author, October 22, 2016.

63. "Iskander's Reach," Russian Defence Policy, November 20, 2016, available from <https://russiandefpolicy.blog/2016/11/20/iskanders-reach/>.

64. Raymond Finch, "The Mobilization of Russian Society," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016; Monaghan, *Russian State Mobilization*; Monaghan, *Defibrillating the Vertikal*; Golts, "Modernization Vs. Mobilization"; Blank, "'No Need To Threaten Us, We Are Frightened Of Ourselves,'" pp. 19-150.

65. Aleksandr Golts, "Modernization Vs. Mobilization"; Aleksandr Golts, "Russia Returning to Concept of Mass Mobilization," *Eurasia Daily Monitor*, Vol. 13, Iss. 157, September 29, 2016.

66. Blank, "'No Need To Threaten Us, We Are Frightened Of Ourselves,'" pp. 19-150; Monaghan, *Defibrillating the Vertikal*; Monaghan, *Russian State Mobilization*.

67. Covington, pp. 27-29.
68. *Voennaya Doktrina Rossiiskoi Federatsii*, February 5, 2010; *Voennaya Doktrina Rossiiskoi Federatsii*, December 26, 2014; NSS; *Natsional'naya Strategiya Bezopasnosti Rossii*, December 31, 2015.
69. Velez-Green.
70. *Voennaya Doktrina Rossiiskoi Federatsii*, February 5, 2010; *Voennaya Doktrina Rossiiskoi Federatsii*, December 26, 2014; NSS.
71. "Russian General Calls For Preemptive Nuclear Strike Doctrine Against NATO," *The Moscow Times*, September 3, 2014, available from <https://themoscowtimes.com/articles/russian-general-calls-for-preemptive-nuclear-strike-doctrine-against-nato-39016>.
72. "Russia to broaden nuclear strike options," RT News, October 14, 2009, available from <http://rt.com/news/russia-broaden-nuclear-strike/>; Mark B. Schneider, "The Nuclear Forces and Doctrine of the Russian Federation," *Comparative Strategy*, Vol. 27, Iss. 5, October 2008, pp. 397-425.
73. Armin Rosen, "NATO Report: A 2013 Russian Aerial Exercise Was Actually a 'Simulated Nuclear Attack' on Sweden," *Business Insider*, February 4, 2016, available from <https://carnegieendowment.org/2016/02/04/nato-report-2013-russian-aerial-exercise-was-actually-simulated-nuclear-attack-on-sweden-pub-62677>.
74. "Russia Says New US Nuclear bomb 'Destabilizes Situation'," *RIA Novosti*, August 3, 2016, Interfax News Agency, August 3, 2016.
75. Lora Saalman, Gu Guoliang, Zou Yunhua, Wu Riqiang, and Jian Zhang, "China's and Russia's Nuclear Relations," Carnegie-Tsinghua Center for Global Policy, July 7, 2013, available from <https://carnegietsinghua.org/2013/07/07/china-s-and-russia-s-nuclear-relations-event-4167>.
76. Simon Saradzhyan, "Yes, Russia's Military Is Training for a 'Mega War.' That's What Militaries Do," *The National Interest*, August 30, 2016, available from <http://nationalinterest.org/feature/yes-russias-military-training-mega-war-what-militaries-do-17529?page=show>; "Russian Missile System, Submarine

Engage Simulated Targets at Kavkaz-2016 Drills," *Sputnik News*, September 9, 2016, available from <https://sputniknews.com/military/201609091045126804-drills-russia-triumf/>; "Russian General Calls for Preemptive Nuclear Strike Doctrine against NATO," *The Moscow Times*, September 3, 2014, available from <https://themoscowtimes.com/articles/russian-general-calls-for-preemptive-nuclear-strike-doctrine-against-nato-39016>; Howe, "Future Russian Strategic Nuclear and Non-Nuclear Forces"; Schneider, "Russian Nuclear Weapons Policy and Programs, the European Security Crisis, and the Threat to NATO."

77. Author's conversations with U.S. Army Commanders in Germany, 2015.

78. Lieutenant Colonel Pentti Forsström (Finland), "Russian Military Interests In the Baltic Region in the Light of the Crimean Operation and the Development of Russian Threat Perceptions in the Military Sphere," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016.

79. *Ibid.*

80. Schneider, "Russian Nuclear Weapons Policy and Programs, the European Security Crisis, and the Threat to NATO."

81. Julian Isherwood, "Russia Warns Denmark Its Warships Could Become Nuclear Targets," *The Telegraph*, March 21, 2015, available from <https://www.telegraph.co.uk/news/worldnews/europe/denmark/11487509/Russia-warns-Denmark-its-warships-could-become-nuclear-targets.html>.

82. *Ibid.*; Keith B. Payne, "Putin Wields the Nuclear Threat—and Plays with Fire," *National Review*, June 30, 2015, available from <http://www.nationalreview.com/article/420510/russias-nuclear-strategy-coercion-and-intimidation>, accessed October 14, 2015; National Institute for Public Policy, *Russia's Nuclear Posture*, Fairfax, VA: National Institute Press, 2015, available from <http://www.nipp.org/wp-content/uploads/2015/04/Russias-Nuclear-Posture.pdf>, accessed October 14, 2015.

83. "Press Conference by Secretary Hagel at NATO Headquarters, Brussels, Belgium," Department of Defense transcript,

February 5, 2015, available from <http://www.defense.gov/transcripts/transcript.aspx?transcriptid=5587>.

84. Marco Giannangeli, "Intercepted Russian Bomber Was Carrying a Nuclear Missile Over the Channel," *Express*, February 1, 2015, available from <http://www.express.co.uk/news/uk/555454/Intercepted-Russian-bomber-was-carrying-a-nuclear-missile-over-the-Channel>.

85. Shane Harris, "Did a Russian Ship Cut Syria's Internet Cables?" *Daily Beast*, October 13, 2016, available from <http://www.thedailybeast.com/articles/2016/10/13/networks-in-syria-go-out-as-russian-ship-lingers-by-coast.html>.

86. Timothy Thomas, "Russia's Expanding Cyber Activities: Exerting Civilian Control while Enhancing Military Reform," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016; Stephen Blank, "Russian Information Warfare as Domestic Counterinsurgency," *American Foreign Policy Interests*, Vol. 35, Iss. 1, 2013, pp. 31-44.

87. Kurt Eichenwald, "Why Vladimir Putin's Russia is Backing Donald Trump," *Newsweek*, November 4, 2016, available from <http://www.newsweek.com/donald-trump-vladimir-putin-russia-hillary-clinton-united-states-europe-516895?rx=us>.

88. James R. Clapper, "Worldwide Threat Assessment of the US Intelligence Community," Washington, DC: Senate Armed Services Committee, February 9, 2016, available from http://www.armed-services.senate.gov/imo/media/doc/Clapper_02-09-16.pdf.

89. Keir Giles, "Russia's 'Lessons Learned' from Ukraine and Syria," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016.

90. As told to this author by U.S. Army Europe commanders, Wiesbaden, Germany, July 2015 and September 2016.

91. "Russia Seeks Naval Base In Egypt," *Middle East Monitor*, January 30, 2014, available from <https://www.middleeastmonitor.com/20140130-russia-seeks-naval-base-in-egypt/>; "Egypt denies talks on hosting Russian airbase," *RT News*, October 10, 2016, available from <https://www.rt.com/news/362243-russia-military-base-egypt/>;

Neil MacFarquhar and David E. Sanger, "Russia Sends Bombers to Syria Using Base in Iran," *The New York Times*, August 16, 2016, available from <https://www.nytimes.com/2016/08/17/world/middleeast/russia-iran-base-syria.html>; "Iranian Security Chief Reveals Iran, Russia Sharing Military Base in Syria," Radio Free Europe Radio Liberty, December 20, 2016.

92. Stephen Blank, "A Clinic on Clausewitz: Lessons of Russia's Syria Campaign," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016.

93. Fiona Hill and Clifford G. Gaddy, *Mr. Putin: Operative in the Kremlin*, Revised and Expanded Ed., Washington, DC, 2015, pp. 334-361. These authors are among the very few who rightly see Putin as a strategist and take this issue seriously.

94. "Meeting of the Security Council on state policy in the Arctic," President of Russia, Moscow, Russia, April 22, 2014, available from <http://en.kremlin.ru/events/president/news/20845>.

95. Katarzyna Zysk, "Managing Military Change in Russia," in Jo Inge Bekkevold, Ian Bowers, and Michael Raska, eds., *Security, Strategy and Military Change in the 21st Century: Cross-Regional Perspectives*, Abingdon-on-Thames, UK: Routledge, 2015, pp. 155-177.

96. Valery Gerasimov quoted in Yurii Gavrilov, "Genshtab Otsenil Ugrozy" ("The General Staff Evaluated [or Assessed] the Threat"), *Rossiiskaya Gazeta*, February 15, 2013; Dmitry Medvedev, "Vystuplenie Na Zasedanii Soveta Bezopasnosti Po Voprosam Razvitiya Sudostroeniya" ("Speech at the session of the Security Council on the Question of the Development of Shipbuilding"), President of Russia, June 9, 2010, available from www.kremlin.ru. See also "Rogozin: Za Arktiku Razvorachivaetsya Tselaya Bitva" ("To the Arctic's Expanding Battle"), *Vzglyad*, December 20, 2013.

97. Deputy Chief of the General Staff, Anatolii Nogovitsin quoted in Olga Kolesnichenko, "Arktika—Prioritet Rossiiskoi Vneshnei Politiki" ("The Arctic, a Priority of Russian Foreign Policy"), *Voenno-Promyshlennyi Kur'er*, August 26, 2009.

98. "Genshtab Dolozhil o Real'nykh Rezul'tatakh Voennoi Reformy" ("The General Staff Reported on the Real Results of Military Reform"), *Odnako*, February 14, 2013, available from Odnako.org.

99. Mark A. Smith and Keir Giles, *Russia and the Arctic: The "Last Dash North,"* Shrivenham, Swindon, UK: UK Defence Academy, September 2007, available from http://conflictstudies.academia.edu/KeirGiles/Papers/966105/Russia_and_the_Arctic_the_Last_Dash_North.

100. Zysk, "Managing Military Change in Russia."

101. Ibid.

102. Ibid.

103. Mallory Shelbourne, "Putin Spokesman Calls on Trump to Press NATO to Withdraw from Border," *The Hill*, November 12, 2016, available from <http://thehill.com/policy/international/305709-putin-spokesman-calls-on-trump-to-press-nato-to-withdraw-from-border>.

104. Samuel Gardiner, "'When Do You Know It Is a Bridge Too Far?' Emergency Deputies Committee Meeting, Defense of the Baltic States," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016.

105. Forsström.

106. James Sherr, "Ukraine and the Black Sea Region: The Russian Military Perspective," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016.

107. Jacob W. Kipp, "Russian Naval Power Under Putin," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016.

108. Stephen Blank and Younkyoo Kim, "The North Caucasus: Russia's Other War," *Journal of Slavic Military Studies*, Vol. 29, Iss. 2, Spring 2016, pp. 185-202.

109. Ariel Cohen, "Russia in North Caucasus: Two Hundred Fifty Years of Counter-Insurgency, Putin's War against Islamist Extremism," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016.

110. Medvedev, "Vystuplenie Na Zasedanii Soveta Bezopasnosti Po Voprosam Razvitiya Sudostroeniya" ("Speech at the session of the Security Council on the Question of the Development of Shipbuilding").

111. Roger N. McDermott, "Russia Rehearses Military Intervention in Central Asia and the Caucasus," *Central Asia-Caucasus Analyst*, November 17, 2017, available from <https://www.cacianalyst.org/publications/analytical-articles/item/13484-russia-rehearses-military-intervention-in-central-asia-and-the-caucasus.html>.

112. Sébastien Peyrouse, "Russia's Military Presence in Central Asia: Strategy, Capabilities and Threats," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016.

113. Ibid.

114. Stephen Blank, "Is China about to make military moves in Central Asia?" *Central Asia - Caucasus Analyst*, May 9, 2016, available from <https://www.cacianalyst.org/publications/analytical-articles/item/13358-is-china-about-to-make-military-moves-in-central-asia?.html>.

115. Daniel Gouré, "Cutting the Putian Knot: Developing a Strategy for Dealing with an Authoritarian, Unstable and Armed Russian Regime," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016.

116. Ibid.

117. Daniel Keohane, "Make Europe Defend Again?" *Judy Dempsey's Strategic Europe*, November 18, 2016, available from <http://carnegieeurope.eu/strategieurope/?fa=66199>.

118. Thomas-Durell Young, "Responding to Russia's Challenge to Eastern Europe: The Imperative to Adopt a Policy of 'Honest Defense'," paper presented to The Russian Military in

Contemporary Perspective conference, Washington, DC, May 9-10, 2016.

119. Ibid.

120. Andrew A. Michta, "NATO and a Resurgent Russia: Can the Alliance Adapt?" paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016.

CHAPTER 2. CUTTING THE PUTIAN KNOT: DEVELOPING A STRATEGY FOR DEALING WITH AN AUTHORITARIAN, UNSTABLE, AND ARMED RUSSIAN REGIME

Daniel Gouré

A NEW TYPE OF ADVERSARY

In 1939, a month after the start of World War II, Winston Churchill gave one of the first of his many addresses to the British people on the state of the war. Speaking about Russia and, in particular, that country's apparent willingness to divide the continent between itself and Germany, he observed, "I cannot forecast to you the action of Russia. It is a riddle, wrapped in a mystery, inside an enigma; but perhaps there is a key. That key is Russian national interest."¹ In the end, he believed Russia would be guided in its response to Nazi aggression not by its commitment to Marxism-Leninism or an undifferentiated antipathy to the West, but by traditional calculations of national power. In effect, Churchill, the long-time ideological foe of international communism, assumed that when all of the challenges associated with governing a major power in general, and a growing danger of war in particular, Russia would not be driven by ideology but, rather, would return to the mean, to a form of *realpolitik*.

Today, it cannot be so readily assumed that Russian foreign and defense policies are being guided by classic Russian national interests nor by any coherent set of beliefs or principles. While there are elements of traditional state politics and geostrategic calculus in Russian security policy, much of the behavior of the regime of President Vladimir Putin, both at home and

abroad, is driven by internal forces, which possess the characteristics of the unique and potentially dysfunctional system of governance that has developed over the past 2 decades. To paraphrase Churchill's comment cited in the preceding paragraph, contemporary Russia is a kleptocracy inside a security services-controlled government wrapped in a failing state.

It is a serious mistake for the United States and Western decision makers to view Russia today through the lens of Cold War history or even that country's traditional struggles for security and defensible borders. What we have is a very different political struggle where traditional memes have been misappropriated in part to obscure the Kremlin's real motivations. During the Cold War, and even lately, some observers have explained away Russian bellicose statements and even direct threats by suggesting that they do not reflect real worries or policies but, rather, are for domestic consumption. The implication here is that the Russian Government would never act in the manner that its words suggest, both because the costs of such actions would outweigh the gains, and because even Putin recognizes the value in maintaining a balanced relationship with the rest of the world. In other words, Western observers apply their own logic and frame of reference to the policies and actions of the Russian Government.

What if it is precisely the actions themselves that are for public consumption, those already undertaken in places like Georgia, Crimea, and Ukraine or those suggested in public statements? Russia has become an increasingly repressive regime, one with a narrow, even shrinking, power base that is reliant on evermore onerous rent-seeking behavior to keep its supporters satisfied. However, for that very reason, Russia

is unable to provide the broader population with a better life and growing economy, and it is consumed with fear for its own survival, driving Russia to look outside its borders in order to find the means to maintain its power within. In essence, Putin must be ever more focused on an external and hostile world both as a justification of dictatorial behavior at home and as a source of victories, which are unavailable to the Russian Government in other areas of national life. As Stephen Blank observed:

Russia's successes only reinforce Putin's narrative that Russia is surrounded by enemies, in a state of conflict with them and that force is a necessary and desirable response to this situation that merits popular support. Indeed, public opinion polls show that the Russian population not only expects war but also expects it to have beneficial results and 'clarify the situation.'²

It is important to appreciate not only how profound the differences are between Putin's values, perceptions, and interests and our own, but, also, the extent to which U.S. and Western Government officials are driven to explain away these differences, rather than having to deal with the cognitive dissonance that acceptance would require. At a 2017 conference of senior former administration officials, long-time analysts of the Soviet Union and Russia, academics, and scientists who were brought together to address the evolving Russian threat and responses to it, one former U.S. Department of Defense (DoD) official described efforts by her staff at a meeting to anticipate Russian behavior in Eastern Europe in the aftermath of Crimea and Eastern Ukraine. It was difficult for the staff to identify additional plausible Russian aggressive moves against Eastern Europe because the gains appeared small and

the costs great. Finally, this official suggested, “Don’t take crazy off the table.”³ The inability of many, both in and out of government, to understand the factors motivating the foreign and security policies of the Russian Government, leave decision makers with no choice other than repetitively applying a Western template to a decision-making system that is not only different from our own but also traditional Russian and Soviet Governments.

It is time to question the assumption of the majority of Western analysts that Russia is behaving like a normal state, its foreign and defense policies reflecting enduring national interests and balancing costs and gains as it chooses courses of action; in short, engaged in *realpolitik*. Much like the “wounded lion” model, the former great power that has been reduced in size and strength is now fighting back to maintain some semblance of its former greatness. There is something different at work in Russia today that has extraordinary significance for Western efforts to mollify what it believes – erroneously – to be Russia’s security anxieties and to deter potential Russian aggression.

Putin’s Russia is not simply a revanchist, nationalist state (although that plays a role). Traditional interests and geopolitical factors are filtered through the lens of a unique polity unlike any other in a major, modern, industrial or technologically advanced nation. The Russian Government today possesses elements of classic authoritarianism, merged with the predatory behavior of a criminal organization and the paranoia of a police state. In essence, in order to understand how Moscow today perceives and responds to the outside world, it is necessary to look inward at the structure and operation of Russia’s ruling circles. The well-trod narrative of Russian national identity is that of

enduring geographical objectives and struggles with outside powers, but whose aspirations are in service of the interests of a narrow elite.

It has long been recognized that the Russian Government is a dysfunctional entity controlled by a small coterie of officials, many with secret policy or intelligence backgrounds. The so-called *Vertikal*, which is both an entity and a management approach, emphasizes increasing control from the top of all the instruments of power and more and more of the economy. For a period in the mid-2000s, there was a debate among Western observers regarding the degree to which Putin was seeking authoritarian control over the Russian state and whether there was room for eventual liberalization.⁴ That debate is now over. As Dr. Karen Dawisha succinctly put it, "Putin and his circle sought to create an authoritarian regime ruled by a close-knit cabal with embedded interests, plans, and capabilities, who used democracy for decoration rather than direction."⁵

It is somewhat simplistic to ascribe to Putin's efforts to create this ruling circle, or cabal, simply an interest in aggrandizing power to himself. It was also a response to the perceived instability of the nascent Russian democracy and the lack of accountability from the Soviet-era bureaucracy. It was intended to impose order on chaos. For this reason, the paramount need for internal order, the new Russian leadership had no interest in making the changes to its political and economic systems necessary to be part of the Western world and the global economy.

There are many authoritarian states in the world governed by a relatively small elite. Russia is unique in this respect because of the central role played by members of the security services. As early as 2007, *The*

Economist carried the following commentary based on observations by Olga Kryshtanovskaya, a sociologist at the Russian Academy of Sciences:

All important decisions in Russia, says Ms. Kryshtanovskaya, are now taken by a tiny group of men who served alongside Mr. Putin in the KGB and who come from his home town of St Petersburg. In the next few months this coterie may well decide the outcome of next year's presidential election. But whoever succeeds Mr. Putin, real power is likely to remain in the organisation. Of all the Soviet institutions, the KGB withstood Russia's transformation to capitalism best and emerged strongest.⁶

The fact that the core of the *Vertikal* consists of current and former security services personnel is of significance to our understanding of the Kremlin's threat perceptions, national security strategy, and its conduct of foreign and defense policies. According to Moscow State Institute of International Relations Professor Valery Solovey, "Nowhere [else], not in any country of the world are spies trusted to run the state because they are professional paranoids, for whom coincidences and accidents do not exist."⁷ Moreover, this mindset leads to a blurring of the distinctions between not only external and internal threats to Russian security but also between the political and administration requirements for the rise of civic culture and private economy in Russia and domestic subversion. In essence, efforts in Russia to broaden the political process and liberalize the economy are considered threats to the existing order and the position of those who occupy the commanding heights. This is a threat, in turn, to the stability and security of the Russian state.

Therefore, it is not surprising that Russian threat assessments focus as much on political and economic themes as military ones. From the perspective of the

ruling clique, the collapse of the Soviet Union was just the start of a global campaign by the West against regimes that did not share its political and economic agenda. In the eyes of a Russian leadership obsessively focused on stability and control at home, the collectivist decision-making structures of the North Atlantic Treaty Organization (NATO), the European Union (EU), and the World Trade Organization (WTO), and their demands for law-driven and rules-based governance in member countries, posed a lethal threat to the Russian state. Even without expansion eastward, by their very nature, NATO and the EU posed a threat to the Kremlin conception of the Russian state.

The result of the domination of the Russian state by an exceptionally small political elite, many of whom have their roots in the security services with its abiding concern for internal threats, has resulted in a phenomenon referred to by a number of observers as the “securitization of the state.”⁸ Anything that challenges the sovereignty, autonomy, and authority of the state is a threat. It follows that all aspects of state policy and behavior, down to the actions of the individual citizen, are a matter of security.⁹ As Dr. Blank observed, everything in Russia is about security:

As many writers and the Russian government have noted, internal and external security and the means of achieving them are fused in Putin’s Russia. Indeed, virtually all areas of Russian social and cultural life have been ‘securitized.’ This ‘securitization process’ has gathered steam since the National Security Strategy of 2009, if not from the start of Putin’s tenure, and continues to this day as the state takes over more and more responsibility for steering the entire socio-economic-cultural and political life of the country and seeing ever more aspects of social life as being at risk from foreign ideas and influences.¹⁰

Further complicating the schema that drives the Kremlin's threat perception and national security strategy is the fact that the Russian Government is not merely a cabal of like-minded individuals beholden only to one another. It is also a kleptocracy, a criminal state. Russia today has a dysfunctional, autocratic political system based on maintaining and even expanding the kleptocratic behavior of a narrow elite. At one time, when the Russian economy was growing, there was a workable implicit bargain between Putin, his *Vertikal*, and the Russian people. One long-time observer of the Russian scene put it thus: "Stay out of politics and thrive. Interfere, presume, overstep, and you will meet a harsh fate."¹¹ However, the combination of declining oil revenues; rising inflation; a devalued ruble; increased competition from abroad; massive capital flight; higher expenditures on security forces; and, most recently, Western sanctions, has destroyed the basis for this bargain between the governing and the governed.

Inside the ruling elite, longstanding competition over power and property has intensified as the resource base has shrunk. The 'economic storm' has caused 'bewilderment' and nervousness at the top, since the elites did not anticipate the West's determination to impose effective sanctions and underestimated the effects of those sanctions.¹²

Kleptocracies, like mafia families, have relatively little interest in creating conflict unless it is somehow related to their financial interests. As was stated in the movie *The Godfather*, "It's not personal. . . . It's strictly business."¹³ However, the business must be protected. There is the rub. The Russian economy today is highly dysfunctional. At the same time, the current leadership cannot risk economic reforms.

It is difficult for those in the West to appreciate the magnitude of the corruption and its impact on the Russian economy. It is at the heart of the country's current economic crisis. According to Sergei Guriev, foreign investors are avoiding Russia, and domestic ones are fleeing the country. "The level of corruption in Russia is on par with that of the poorest countries in the world."¹⁴ However, the true measure of the impact of the Kremlin kleptocracy is not in its diminished economic performance, the growing gap between rich and poor, or even the flow of wealth out of Russia, but in the growing infighting among the elite and the ever-increasing need for tighter controls leading, in the views of one well-respected observer, "to the increasing risk that the country will be driven into a renewed hard authoritarian regime."¹⁵ The kleptocracy is ingrained; it is an essential part of the exercise of power in Russia. Hence, despite its impact on the overall economy, it is inconceivable that the Kremlin will be able to reform itself in order to save the country.

It is important to recognize that there are few restraints remaining on the way Putin chooses to exercise power. There are no alternative, legitimate institutions that can act as a brake on presidential dictates. There is no equivalent of so-called doves in the Soviet system that many in the West believed exercised restraint on the more bellicose members of the leadership.¹⁶ Furthermore, Moscow's effort to exert ever greater control over the Russian economy, regions, and people inevitably will lead to resistance at the local level and increased disillusionment with the government generally, and Putin in particular. The result may be a systemic crisis in the central government's ability to rule.¹⁷

Recent moves by Putin to create a so-called National Guard must be viewed as an acknowledgment of the profound dysfunctions in the Russian political and economic systems. It is an effort to insulate a few close associates and himself from the kind of pressure and even resistance that his poor decisions could produce. Over the past several years, power had gravitated to the Siloviki—the security services—and the military in particular. Putin created competing centers of power including multiple security services and allowed them to fight among themselves over various pieces of the national economy. Now, much of the former’s power has been withdrawn, and the latter will be confronted by a sizeable National Guard, a true presidential army.¹⁸

The preceding discussion illustrates the extent to which Russian foreign and defense policies are increasingly driven by domestic factors and specifically by the growing challenges to Putin’s ability to maintain power. The current economic and political systems virtually guarantee Russia’s continual decline. This is at the core of the Kremlin’s threat perceptions and its increasing need either to alter Russia’s relationship with the outside world or to isolate Russia from that world.

After implementing liberal economic reforms aimed at strengthening Russia’s sovereignty in the early years of his rule, Putin has rejected structural, internal economic and political reforms, fearing that like Gorbachev he too could be swept from power. Putin’s choice reflects a view that Russia can only address its non-competitiveness by changing the world around Russia, and most critically, by changing the European security system. In Putin’s view, any solution short of changing the European security system—including full integration, separation by erecting new walls, freezing the status quo around

Russia, or partnering with other countries to counter-balance the powers in the European system – only means Russia’s inevitable loss of great power status and the loss of his personal power at home.¹⁹

A similar assessment has been offered by former Ambassador Nicholas Burns and former National Security Advisor General James Jones, USMC (Ret.):

Moscow aims to undermine the law-based principles of European security and the liberal international order that the United States and its European allies first established in the aftermath of World War II and expanded after the fall of the Berlin Wall. It is not just the NATO countries who have an interest in the preservation of this international system. Democracies and law-based societies around the world have a stake in preserving the global security order.²⁰

An even more profoundly disturbing interpretation of the interplay between domestic forces operating in Russia and that country’s national security policies is provided by Andrei Piontkovsky, former Executive Director of the Strategic Studies Center (Moscow). In an interview with a Canadian radio station, he observed that with respect to the current environment in Russia “we have a symbiotic mutant state, fascistic. We have a foreign policy of Hitler and Mussolini-type internal policy.”²¹

The question is not whether the current system in Russia is sustainable; it is not. There is no reason to believe that Putinism will result in collapse any time soon. Nor is there reason to believe that there is a less hardline leadership waiting in the wings. Hence, the West cannot simply wait Putin out. The fundamental question for U.S. and European security policies thus becomes whether the current Russian regime, facing

an ever-intensifying domestic economic crisis, a fragmenting political elite, and a leader bent on consolidating more power to himself, is deterrable. What makes this question particularly problematic is that, unlike the Cold War when the focus of deterrence policy was on Soviet military aggression against the West, today what must be deterred is the Kremlin's efforts to change the European political system, undermine NATO, neutralize the United States as a counterweight to Russian regional power, and create a domain or safe space for Russia.

As Putin and other Russian leaders have made clear, the threat they fear is one of political destabilization at home. In effect, the principal threat to Russian security is an insurgency, but one that exists not simply within Russia but outside it as well. In fact, this is not merely a threat. The Kremlin believes that the West has been engaged in an ongoing war against Russia, employing a full range of means, in particular, information operations. Consequently, the Kremlin sees itself as having to fight a sophisticated, international, even global, counterinsurgency campaign against the West, in general, and NATO and the United States, in particular.²²

President Putin's decision is influenced by Russia's experiences since the end of the Cold War – internal coup attempts, terrorist attacks, 'colored revolutions' around Russia, wars inside and outside of Russia, unfinished reforms, and perceptions of Russia's natural vulnerability to a fate similar to that of the USSR given its one-dimensional economic base and political superstructure. However, Putin's policy is driven mostly by concerns about Russia's inability to compete on almost any level and in almost any sphere with the world's greatest powers absent fundamental changes to the security, energy, economic, and financial systems around Russia.²³

As the crises within Russia have deepened, Putin has intensified his rhetorical (and actual) attacks on the West. This reflects his fundamental belief that the West seeks to keep Russia down and is behind these crises, and that the West as he envisions it will inevitably take advantage of any perceived weaknesses in Russia. In essence, from weakness comes Moscow's new belligerence and aggressiveness.

Although a number of Russian leaders have, in the past, expressed displeasure with NATO and the West, only Vladimir Putin has translated this displeasure into full contempt. It seems hardly a coincidence that his regime's jingoism, military adventurism, and anti-Western/anti-NATO rhetoric have often coincided with economic and political crises at home.²⁴

Classic deterrence theory postulates two basic strategies for preventing aggressive actions by the subject country: objective denial and cost imposition. The former is problematic when the objectives are as much political as they are military and against an adversary that now threatens to employ nuclear weapons first to de-escalate a conflict. It also faces another difficulty. As Dr. Blank observes, the Putin regime today only has its campaign for great power status on which to rely for its domestic legitimacy.

it is quite unlikely that Putin can alight from the tiger he has chosen to ride, i.e., the obsession with great power status. For if Moscow reined in its ambitions to a more manageable size and refrained from its imperialistic behavior in the CIS [Commonwealth of Independent States] and the Middle East, the state might collapse. Since Putin cannot and clearly will not reform the economy to give it more dynamism at the expense of his and his cronies' power and wealth foreign adventures are the only option left to him to maximize his popularity, legitimacy and power at home. Absent bread, only circuses are left.²⁵

A cost imposition strategy would entail efforts to target the economy, political infrastructure, mechanisms for internal control, and the Russian people's sources of information. In essence, this means doing consciously and aggressively exactly what the Russian threat assessment claims the West has always been doing to Russia. This is how the Kremlin interpreted the imposition of Western sanctions in response to the invasion of Crimea and the destabilization of Eastern Ukraine. While this could be successful, it could also result in the Russian leadership perceiving a threat to the survival of the regime with all that such a reaction might entail.

Deterring Putin's Russia will be challenging for another reason. Russia is the ultimate hybrid threat. It is described as such, not merely because it has developed a panoply of official and unofficial tools with which to pursue its strategic objective, but because it is the quintessential hybrid actor. Hybrid actors are generally defined as nonstate entities able to employ both traditional and nontraditional elements of power and, in many cases, support from traditional nation states. Russia is unique insofar as it is controlled by a cabal that has many of the characteristics of the nonstate groups that have acquired hybrid capabilities and developed strategies based on their use. Moreover, many of the tools and techniques employed by the Kremlin in the pursuit of its external strategy are the same as it has employed to maintain and even increase its domestic controls. It is hardly surprising that the Vertikal, with its core of former and current secret police officers and close engagement with criminal elements in the pursuit of pecuniary interests, has been able to employ with such effect bribery, blackmail, hacking, intimidation, and outright murder in its domestic and foreign

operations. More broadly, Putin's Kremlin employs nontraditional means to further its asymmetric ends. Domestically, these tools have been used to crush Russia's nascent democracy, restrict the development of a civic culture, and exact extraordinary rents from the economy. Internationally, these same means are being employed to destabilize the current international order and, most significantly, the set of alliances and bilateral relationships that are essential to peace in Europe. As Mark Galeotti and Anna Arutunyan observed, "Russia as a state lends itself to all kinds of notions of hybridity: hybrid war, hybrid democracy, hybrid autocracy."²⁶

What makes Russia the most dangerous hybrid threat is that the use of these nontraditional means is integrated with and supported by traditional conventional military capabilities and both are covered by a nuclear umbrella. Moreover, as demonstrated by the operations to seize Crimea and destabilize Eastern Ukraine as well as numerous recent exercises, the Russian military is increasingly capable of and, one might argue, specifically designed to support the employment of nontraditional or hybrid means and methods and the political and territorial gains achieved through their use, benefits the state.

Russia's breakout strategy is supported by many other actions that break with, and break out of the European security system. Russia's breakout actions include the use of force in Crimea, withdrawal from the CFE [Conventional Armed Forces in Europe] treaty, military, financial, and political support to separatists in Eastern Ukraine, direct financial, political, and military actions to destabilize Ukraine on a broader scale, a military rearmament program, the buildup of military capabilities in the Arctic, Black Sea, and Baltic Sea, sudden large-scale military exercises that shift forces to higher combat readiness involving long-range deployments, nuclear

force exercises designed to posture and intimidate, and energy, financial, and informational pressure on European countries. All of these political and military actions break with the norms, rules, and practices of the post-Cold War period and destabilize the current security system.²⁷

NOT JUST A NEW COLD WAR

Putin has developed something of a reputation for adroit political maneuvering. He crushed the nascent democracy movement in Russia, and the world did not let out a peep. He goaded Georgia into giving Russia an excuse to attack it. He saved then-U.S. President Barack Obama and Syrian President Bashar al-Assad in the same maneuver when he proposed elimination of Syria's chemical weapons. His government violated the Intermediate-Range Nuclear Forces (INF) Treaty in a rather obvious manner, and the United States said nothing for several years. He undertook the first alteration of a European border by force in more than 60 years with the invasion of Crimea without major consequences. Most recently, he has successfully conducted what many have called "ambiguous warfare" against Ukraine, including providing the separatists with advanced weapons, training, and direction. Some observers have even characterized the Ukraine campaign as a new art of war.

The Kremlin has done relatively little to hide its involvement in the conflict in Ukraine. At times, as many as 40,000 Russian troops have been massed right over the Ukraine-Russia border for months. Moscow's assistance to the separatists is blatant. The downing of Malaysian Airlines Flight 17 is just one example. It proved fairly easy to trace the SA-11 battery used in

the attack back to Russia. There is now almost no effort to hide the presence of Russian soldiers among the separatist forces, even if some of them are said to be “on vacation.” Columns of Russian armored vehicles and self-propelled artillery were caught on camera moving into Ukraine in July 2016. The Russian leadership had to know that because of the increased surveillance of Eastern Ukraine, such a move would be immediately detected.

Ukraine is not the only area where Russia is acting in a manner similar to that of the Soviet Union. Bear strategic bombers now almost routinely conduct simulated strike missions against U.S. allies in Europe and the Far East. A few months ago, a Russian fighter buzzed a U.S. electronic reconnaissance aircraft operating in international airspace, coming within a few dozen feet of an RC-135. Another fighter forced a U.S. plane to divert into Swedish airspace in order to avoid a collision.

Putin has allowed many additional unnecessary irritants to be injected into the U.S.-Russia and Europe-Russia relationships. There was the decision to grant former Central Intelligence Agency (CIA) employee Edward Snowden temporary asylum, which has since been extended, making it appear that he was acting as a Russian agent. There was the threat by a senior Russian official to cut off America’s access to the International Space Station. How about closing McDonald’s franchises for “health code violations?”²⁸

The timing of Russia’s aggressive moves could not be worse for its relation with the West. What if Putin’s strategy is to confront Europe and the United States with the specter of a new Cold War? The Russian President has long claimed that the West wanted to keep Russia in an enfeebled state and that NATO

posed a serious military threat to his country. He has also repeatedly asserted that it is the West's intention to destabilize his country, as he claims the West previously destabilized Yugoslavia, Iraq, Libya, Syria, and even Ukraine. It is clear that in his mind the new Cold War has actually been underway for several years at least, and the West started it. On January 18, 2005, Russian Defense Minister Sergei Ivanov told the Academy of Military Sciences, the official institutional locus of systematic thinking about contemporary war, that:

there is a war against Russia under way, and it has been going on for quite a few years. No one declared war on us. There is not one country that would be in a state of war with Russia. But there are people and organizations in various countries who take part in hostilities against the Russian Federation.²⁹

At the 2016 Munich Security Conference, Russian Prime Minister Dmitry Medvedev made the issue of a new Cold War explicit, stating that "NATO's attitude toward Russia remains unfriendly and opaque, and one could go so far as to say we have slid back to a new Cold War."³⁰ In an interview with *Time*, Medvedev went further, enumerating the NATO measures taken in response to Russian aggression in Europe as the sources of a new Cold War.

I said that NATO's decisions are pushing us toward a new Cold War. I said this and I will again confirm it. Because before me, my former counterpart Mr. [Jens] Stoltenberg – he is now the NATO secretary general – spoke [at the Munich conference], but what did he say? He said Russia should be contained; [military] contingents should be beefed up and defenses mounted along the borders in all areas. If this isn't preparing for another Cold War, what is it for then? For a hot war? Such is the reality.³¹

In essence, by taking actions that seem to make real the Kremlin leadership's warped narrative of the inherently conflictual relationship between Russia and the West—military encirclement, efforts at internal destabilization, operating from a position of power, expanding alliances innately hostile to Russian interests, etc.—Putin challenges the West, particularly the leaders of NATO and the EU, to demonstrate through conciliatory behaviors that the Russian narrative is false.

There are many Western leaders willing to urge caution when it comes to countering Russian aggression and deterring further moves. No less an individual than former NATO Supreme Commander Admiral James Stavridis argues that the proper response to Russian activities is to emphasize areas of cooperation, negotiate wherever possible, and reduce the level of NATO military activities in order to avoid an accidental collision.

But if we do not stop provocative activities like those undertaken by the Russian aircraft last week, we will sooner or later have a shoot-down and a potentially far more dangerous confrontation. The United States, for its part, must be transparent about military deployments around the Russian periphery and emphasize that no offensive action is contemplated.³²

Former U.S. Secretary of Defense (SECDEF) Chuck Hagel criticized NATO's recent decision to deploy four battalions to the Baltic countries as not being based in any considered strategy and warned that this could lead to an action-reaction cycle that would result in a new Cold War. "Then we continue to build up the eastern flank of NATO, with more battalions, more exercises, and more ships and more platforms, and the

Russians will respond. I'm not sure where that takes you either."³³

Putin is therefore attempting to engender an anti-Cold War movement in the West. Western efforts to oppose Russian aggression and deter military threats are characterized as destabilizing actions, rather than reasonable responses to intolerable provocations. The victim is to blame for seeking to stand up to his attacker. Putin also may have calculated that a Cold War was his best option for solidifying his political position in Russia, setting it in concrete so to speak. Prior to his crackdown on domestic dissent and the move into Crimea, Putin's popularity was clearly waning and his political prospects were limited at best. The Russian economy was going nowhere. It was becoming clear that the Kremlin would have insufficient resources with which to make good on Putin's campaign promises. Now, after the annexation of Crimea, and with the war in Ukraine continuing, his popularity is at record high levels.

It is not clear that any level of sanctions short of a total embargo on imports of Russian oil and gas would significantly diminish Putin's domestic position. Nor is such an outcome likely even in a new Cold War. After all, during the last one, Germany bought gas from the Soviet Union, and the United States shipped it tens of millions of tons of grain annually. Putin could have the best of both worlds: a secure position at home, access to global markets, and an adversary conveniently available on whom to blame any problems in his country.

Even as it brandishes the nuclear sword, Moscow is seeking to ally with anti-nuclear forces in the West. Although the Obama administration has acknowledged that Russia has committed multiple violations of extant arms control agreements, notably the INF

Treaty, there are still those in the West such as former SECDEF William Perry who have focused almost obsessively on the potential of Western nuclear modernization programs as the source of a new Cold War.³⁴ The Russian approach constitutes a perfect example of an integrated hybrid warfare strategy.

Russian military has adopted an approach to conflict in peace, crisis, and war that couples large-scale conventional and nuclear forces to the application of non-attributable, ambiguous means of destabilization. This Russian model of hybrid warfare differs fundamentally from other models in this latter respect. No other nation in Europe is implementing such an array of actions that break with post-Cold War European norms and practices. If Russia produces and fields a missile system that violates the Intermediate Nuclear Forces, Russia's reversal on this agreement would be the final move in Putin's restoration of most, if not all, of the major military lines of the pre-Gorbachev military competition with Europe, ending the single most important Gorbachev-era military agreement, and one that sparked the unwinding of [the] Cold War.³⁵

The extent to which Washington and the major European capitals have allowed Moscow not to merely skirt their international obligations, but, clearly, and almost openly act in contravention of treaty commitments has already been seen. It is part of Putin's hybrid strategy to undermine the rule of law while simultaneously placing the onus for calling out Russia as an aggressor squarely on the West's back.

THE NATO-RUSSIAN MILITARY BALANCE – BACK TO THE FUTURE

As events in Crimea, Eastern Ukraine, and Syria have unfolded, the world has had a chance to see the new Russian defense strategy and force posture in

action. Putin has successfully finessed his country's myriad of weaknesses—economic, political, demographic, and military—in ways that permit him to use coercion and even military force against his neighbors with near impunity. Dealing with an aggressive, yet relatively weak Russia poses a far different problem for the West than deterring or containing a rising China.

Moreover, the kind of military Russia is developing may be particularly well-suited to the Kremlin's objective of undermining the existing international security order and gaining recognition of Russian great power status with a limited risk of war. The "new" Russian military has demonstrated a particular mix of capabilities—rapid, but geographically limited offensive operations, electronic and cyberwarfare, long-range precision strikes, powerful anti-access/area denial systems, and advanced theater nuclear weapons—that serve the goals of supporting gray area operations and deterring Western conventional responses or escalatory moves well.

The discussions of Russian "hybrid" warfare should not obscure an understanding of the extent to which that country has modernized its conventional and nuclear forces. It is also important to recognize the extent to which it is relying, not on gray zone techniques, but conventional military forces as the centerpiece of its local aggressions. It is important also to recognize how much Russian adventures in Eastern Europe have rapidly morphed, from hybrid operations employing nontraditional means and methods, to classic, conventional, military operations. The recent intervention in Syria was a model power projection operation suggesting that the Russian military was quite capable of limited, high-intensity, conventional

operations. The Donbass war is a very conventional war in both senses of the word:

Indeed, the hybrid label serves to draw a veil over the conventional aspects of the war in Eastern Ukraine. While non-military means of power were deployed, they relied on more traditional conventional measures for their success. This was amply demonstrated in the battles at Debaltsevo, Donbass airport and Ilovaisk, during which much of the fighting involved high intensity combat, including the extensive use of armor, artillery and multiple launch rocket systems, as well as drones and electronic warfare. During these battles, massed bombardments were deployed to considerable lethal effect—in short but intense bombardments battalion sized units were rendered inoperable, suffering heavy casualties.³⁶

There is no question that the military modernization program begun in the mid-2000s has been more successful than many observers at the time expected. The Russian Ministry of Defense simplified the overall command structure, reduced the number of units to a manageable set of fully staffed and equipped formations, and developed an exercise and training regime to support rapid concentration and deployment. A focused modernization program has now provided the military, especially the ground forces, with a set of new capabilities focused, in particular, on countering well-documented U.S. and NATO advantages. What some sources have described as Russian “New Generation” warfare includes, in addition to information operations, both new systems and innovative tactics, including the following:

- Electronic warfare;
- Unmanned aerial systems;
- Massed fires with advanced warheads and sub-munitions;

- Combined arms brigades with new armored vehicles;
- Air assault and special operations brigades;
- Advanced, mobile anti-aircraft systems; and,
- Combined kinetic and cyber strike operations.³⁷

What is particularly noteworthy is that the Russian military has demonstrated an ability to integrate different systems as well as force elements. The Russian Army has developed a fairly sophisticated, indirect fires capability that employs EW; unmanned aerial systems for intelligence, surveillance, and reconnaissance (ISR); and, targeting and the rapid delivery of massed artillery and rocket fires. EW is applied across the conflict spectrum and is integrated with information operations, cyberattacks, and the actions of special operations units.

Moscow has proven adept at using EW [electronic warfare] and SOF [special operations forces] in concert to fragment and slow adversaries' strategic decision-making. While "little green men" secure key locations and train local forces, electronic-warfare forces distort ISR collection by adversaries and third parties, limiting their ability to project an accurate counter-narrative to inform confused domestic audiences and a divided international community. And even when a defender does manage to grasp the situation, Russian EW attacks on their command, control, communications, and intelligence disrupts their response.³⁸

In addition, the Russian military has been working diligently to improve their long-range conventional and dual-capable strike systems. From launch positions in Kaliningrad and the Western Military District, the Iskander-M can cover the Baltics; most of Poland; and, portions of Germany, Denmark, and Sweden.

During the recent operation in Syria, the Russian military sought to send the world a multi-level message with its strikes on targets in that country with cruise missiles fired from the Caspian Sea.

The firing of the Kalibr cruise missile from a frigate in the Caspian Sea 900 [km - kilometers] away from Syria to mark Putin's birthday on October 7, 2015, is not only an homage to the president but demonstrates the potential for combining power projection with long-range strikes from 'privileged sanctuaries' inside Russia. And of course it also highlights potential new missions for Russia's navy in tandem with air and/or ground forces.³⁹

The 2,500 kilometer (km) range of the Kalibr/Klub systems will enable them to cover virtually all of Western Europe from sites in Western Russia.⁴⁰

Operations by Russian forces in Eastern Europe will take place beneath a very capable and growing anti-access/area denial (A2/AD) umbrella. The former commander of U.S. Air Forces in Europe General Frank Gorenc warned that the surface-to-air missile systems now deployed in Kaliningrad are "layered in a way that makes access to that area difficult."⁴¹ The longer-range Russian systems are capable of threatening NATO aircraft which operate in parts of Poland and the Baltics.⁴² Crimea is now being turned into another A2/AD bastion that will not only protect Russia's southern flank but also essentially grant it control over the Black Sea. The intervention in Syria has enabled Moscow to create an air defense bubble not only over parts of that country but also well into the Eastern Mediterranean. Former Supreme Allied Commander Europe General Philip Breedlove, USAF (Ret.), described the Russian A2/AD problem this way:

We have the tools, but we do not have nearly enough of them—and the speed that we would need to eliminate these A2/AD bubbles—to be able to deploy our forces is going to be controlled by the depth of the bench of how we can attack those A2/AD forces. . . . Right now, we're almost completely dependent on air forces and aviation assets in order to attack the A2/AD problem. . . . We need more long-range, survivable, precision strike capability from the ground. . . . We need dense capability—like the dense A2/AD networks that we face.⁴³

Another of the:

successes of the Russian military modernization program is its special operations forces (SOF). Following the near-debacle of the 2008 war with Georgia, the Russian government revamped its special operations command and control structure and focused on increasing the capabilities of SOF units. It paid particular attention to enhancing the ability of these forces to conduct counter-terrorism and subversion operations. In addition, the Russian military focused on combining deployments of special operations forces on the ground with new tactics and techniques for counter-C3 [command, control, and communications] warfare, including expanded cyber attacks. Commentators have noted the advanced equipment sported by a number of Russian units in Crimea and even in Eastern Ukraine.⁴⁴

Over the past 3 years, the Russian armed forces have conducted no fewer than 18 large-scale exercises, some of which have involved more than 100,000 troops, and several of which simulated nuclear attacks against NATO allies.⁴⁵ The Zapad 2013 exercise, which took place in the Baltic region, involved the deployment of an estimated 70,000 Russian troops including land, sea, air, air defense, airborne, special forces, Internal Troops of the Ministry of Interior, medical units and army psychological personnel, and logistical

and engineering forces. Among the missions demonstrated were: search and rescue; amphibious landing and anti-landing; air and ground strikes on enemy targets; submarine and anti-submarine warfare; missile strikes with long-range precision strike assets; and, airborne and air assault operations.⁴⁶

The final area where Russian defense investments have paid off is with nuclear weapons. Russia is a major power because it, along with the United States, is the largest nuclear weapons state in the world. With respect to theater nuclear weapons, the Russian inventory is estimated to be 10 times that of the United States. Russia is modernizing every part of its nuclear force posture. Recently, Russia announced the deployment of a massive new intercontinental ballistic missile (ICBM), a replacement for the aging SS-18. The RS-28 Sarmat is supposed to carry no more than 10 warheads, but it also has the power to throw many more halfway around the world. Russia is modernizing the rest of its ICBM force, deploying an advanced submarine that will carry a new ballistic missile and adding dual-capable cruise and ballistic missiles to its theater land and sea forces.

It is also clear that Russia has violated the 1987 INF Treaty by developing cruise and ballistic missiles that exceed permissible ranges. Then-Vice Chairman of the Joint Chiefs of Staff General Paul Selva revealed in a testimony before Congress that Russia had deployed two battalions of these INF-busting missiles.⁴⁷ Development of this variant of the Kalibr cruise missile employed by the Russian Navy against Syria is reported to have begun in 2009, just as the Obama administration was coming into office and the reset with Russia was announced by then-Secretary of State Hillary Clinton. Work on this system progressed for

the 8 years of President Obama's two terms. Then the decision was made to organize, equip, and deploy operational units. The initial deployment occurred at a time in which the new Donald Trump administration was working on ways of improving relations with Russia and even easing economic sanctions.

The critical question to ask is why Moscow decided to develop and then deploy this system. The new system provides but a minuscule addition to Moscow's massive theater nuclear advantage over NATO. Two conclusions are possible. First, Moscow's military strategy and vision of future conflict may foresee a need for additional long-range strike systems. Perhaps this will allow reduced reliance on strategic nuclear forces that can be preserved for intercontinental strikes. If this conclusion is the case, it would conform to the new emphasis on non-nuclear forms of deterrence such as those propounded by Andrei Kokoshin and Russian doctrinal writings.⁴⁸ Second, the Russian leadership has concluded that NATO is incapable of responding to a clear violation of an important arms control treaty. Russian actions sent the message that Moscow would not be bound any longer by the existing arms control agreements, and that it has concluded that there is precious little the West would be willing to do about it.

It may also be part of a strategy to shape the European battlefield in such a way that Moscow can gain and exploit escalation dominance in the event of conflict in Europe. There is a general consensus among defense experts in the West that the credibility of NATO's nuclear deterrent is eroding rapidly. According to an article by two Washington nuclear arms control advocates:

A report by the RAND Corporation found that NATO's nuclear forces have almost no credibility in deterring Russian aggression. If Moscow were preparing to invade parts of Eastern Europe, it would likely be unfazed by the threat of nuclear force, because Russia would find it 'highly unlikely' that 'the United States would be willing to exchange New York for Riga.'⁴⁹

The deployment of the INF Treaty-violating, land-based Kalibr will contribute to Moscow's ongoing efforts to undermine NATO's nuclear deterrent. According to the Honorable Robert Scher, former Assistant Secretary of Defense for Strategy, Plans, and Capabilities, DoD, the new Russian nuclear missile poses a political as well as strategic threat to NATO.

Operationally, these Russian missiles provide Russia with a significant offensive capability that would directly threaten the whole of Europe and nearly all NATO Allies. These missiles are by no means the only way to hold NATO territory at risk –Russia has multiple systems that can do that without violating the INF Treaty. Yet these missiles, deployed in significant numbers, would give Russia an operational capability to immediately and significantly threaten and, with little warning, attack NATO capitals and facilities. While the Alliance has some overall capabilities to counter these threats, the violation presents a diplomatic and operational problem today, and any increase in the number of these Russian missiles would continue to complicate Alliance planning, increase significantly the number of priority targets in any operation, and quickly overwhelm any current air and missile defense systems deployed in Allied nations.⁵⁰

However, Russian nuclear force developments, exercises, and discussions of strategies for a future conflict do not focus on the so-called escalate to de-escalate scenario. There is growing evidence that the escalate to de-escalate model of Russian theater nuclear use

which is so widely touted in the West is wrong. Russian doctrinal writings and statements by senior military and political leaders are replete with statements that focus on nuclear first use, possibly of large numbers of weapons, in a theater conflict. Recent Russian military exercises have involved the employment of nuclear weapons, including deep strikes, outside the context of a de-escalation scenario.⁵¹ This evidence suggests that the Russian leadership views nuclear weapons, as a means of assuring victory in future wars and of controlling escalation throughout future crises, not, as Western observers had hoped, as a means of controlling escalation and limiting conflicts.

Nuclear weapons are at the heart of Putin's geopolitical strategy for reasserting Russian influence not only in the near abroad but also in Europe as a whole. The Kremlin believes that if Europe remains vulnerable to Russian nuclear threats, it can be influenced, even coerced, on subjects such as Ukraine. In effect, Moscow hopes that this threat will compel NATO and the EU to stand by as the Russian empire is recreated. It is with these objectives in mind that Russia has been developing a series of launchers and warheads to permit it to conduct precision low-yield nuclear strikes. These weapons are consistent with the Russian military doctrine's focus on being able to employ a limited number of low-yield weapons so as to counter Western conventional superiority.⁵²

One of the primary reasons that Russia has been so steadfastly opposed to the deployment of missile defenses in Europe, even though proposed defenses will be incapable of defeating . . . their nuclear weapons as instruments of coercion with respect to Europe. For this reason, the hint put forward recently by the Obama Administration that it is considering accelerating the deployment of theater missile defenses, the Phased

Adaptive Architecture, to Eastern Europe, is a significant threat to the Kremlin.⁵³

The successful occupation of Crimea and the current operations to destabilize Eastern Ukraine belie the general weakness of Russia's conventional military forces. Successive modernization campaigns have conflicted with:

budget difficulties, weaknesses in the country's military-industrial complex, the inability to shift from a conscript-based to a professional military, a limited pool of acceptable conscripts, and political infighting. Efforts to mimic Western militaries' transformation from quantity to quality in military forces have been only partly successful. Despite a significant increase in defense spending in recent years, the Russian military not only lacks sufficient modern equipment, but many of the critical enablers to support the kind of high intensity, fast-paced, information-intensive operations that the United States and a number of its allies can conduct. Russia has had to go to foreign suppliers, including NATO countries, for such capabilities as amphibious warfare ships, unmanned aerial vehicles, and even training facilities.⁵⁴

Nonetheless, Russia has developed and demonstrated a capability for conducting a kind of quasi-military campaign designed to achieve ends equivalent to those formerly attainable only by military means but with a diminished risk of actual war with NATO. According to a report by the Defense Committee of the United Kingdom's (UK) Parliament:

The Russian deployment of asymmetric tactics represents a new challenge to NATO. Events in Ukraine demonstrate in particular Russia's ability to effectively paralyze an opponent in the pursuit of its interests with a range of tools including psychological operations, information warfare and intimidation with massing of conventional forces. Such operations may be designed to slip below NATO's threshold for reaction. In many circumstances,

such operations are also deniable, increasing the difficulties for an adversary . . . mounting a credible and legitimate response.⁵⁵

Many Western leaders and defense analysts focus too much on the actual capabilities of the Russian military to engage in a high-end conventional conflict. The Russian military is an extremely brittle instrument. It will be decades before Russia could pose a conventional threat to NATO writ large. Rather, the role of Russian conventional capabilities as an escalatory threat and a backstop to its quasi-military activities is the most threatening.

In any case, Russia does not need to mount an actual invasion in order to use military intimidation against its neighbors. The Crimea operation demonstrated that it is already willing to use those parts of its military it considers fit for purpose, while the main force is still being developed. In the meantime, Russia's Ground Troops created effect simply by existing. Throughout much of 2014 and early 2015, the main force opposite the Ukrainian border served as a distraction from actual operations within Ukraine, by being depleted or augmented as the political situation dictated, keeping Western governments and intelligence agencies in a perpetual state of speculation as to the likelihood of a full-scale invasion. The actual capability of those troops was irrelevant; they were ready and available to be inserted into Ukraine as and when required to counter Ukrainian government offensives.⁵⁶

Supporting this conclusion is clear evidence that the Russian Government employed nuclear threats and demonstrations to provide "top cover" for the actions of its paramilitary forces in both Crimea and Eastern Ukraine. According to one Polish analysis:

Russia's nuclear weapons-related activities often leave room for plausible deniability, but the abundance

of evidence shows that nuclear signals were used to support the 'little green men' and other actions on the ground in Ukraine. First and foremost, context matters. Russia's nuclear-related activities (including the March 2014 strategic nuclear exercise) have taken place against the backdrop of its aggression toward Ukraine. During a crisis, even routine military behavior translates into a signal. And Russia's nuclear-related activities went beyond routine activities: they were exceptional in number, frequency, scale, and complexity, and in their provocative nature. Their specific timing has also been important: they have often coincided with critical periods of the crisis and with Western deliberations about how to respond. In this context, it is noteworthy that, while Russian nuclear messages have continued, their pace has slowed since the Minsk II agreement.⁵⁷

The Kremlin knows it has neither the time nor the resources to reconstruct a great power military. It must act in the near term to create the conditions that, in effect, will insulate Russia from the forces of global economic and political change. The "West will have to figure out how to help those living in Russia's neighborhood withstand the kind of tactics and forces Moscow employed in Crimea and is currently employing in Eastern Ukraine." The West must also pose a credible counter to Russian conventional forces, and deter the threats posed by that country's long-range conventional and nuclear weapons.⁵⁸

HOW DO YOU DEAL WITH A DYSFUNCTIONAL ADVERSARY? TAKING BACK U.S. AND WESTERN SECURITY

It has become clear to any reasonable observer that it is not possible either to give Putin what he wants or to simply ignore his threats and wait him out. Like a shark, he must continually move and feed. Success will

only breed the need for a greater perception of invincibility. It is ironic that passivity or accommodation in the face of Russian aggression only produces more of it. Resistance to Russian subversion and aggression is, in the new Putinist dialectic, evidence of aggressive intent. In this way, the current situation does resemble the late 1930s.

For the first time in more than a generation, NATO must confront the very real possibility of a major conventional conflict with Russia. This has completely overturned NATO's defense strategy as well as the budget and force structure plans of virtually all member countries. Breedlove described NATO's new strategic challenge very clearly:

For the last 12 to 14 years, we've been looking at Russia as a partner. . . . We've been making decisions about force structure, basing investments, et cetera, et cetera, looking to Russia as a partner. Now what we see is a very different situation.⁵⁹

NATO members must confront the reality that their 2-decades-long peace dividend is over. Nor can they rely on the United States to carry the burden of the Alliance's security. Over the past decade, the share of overall Alliance defense spending carried by the United States has risen from two-thirds to three-quarters. Most NATO members have consistently failed to meet the agreed on minimum defense budget target of 2 percent of gross domestic product (GDP). While the rest of the Alliance budgets some \$300 billion a year on defense, much of that is misspent. After years of dithering, the Alliance is only just beginning to address critical shortfalls in such capabilities as airborne ISR, aerial refueling, logistics, and cybersecurity. In addition, NATO forces are poorly situated to deter Russian aggression in Eastern Europe.

The United States and NATO recognized early in the confrontation with Russia that the credibility of the Alliance's commitment to collective defense, unchallenged for some 25 years, had to be affirmed and even explicitly demonstrated. This was all the more important in light of the withdrawal of the overwhelming majority of U.S. forces from Europe and the decision of the Obama administration to pivot to the Pacific. The United States in particular took steps to bolster NATO's defenses. F-15 and F-16 fighters have been deployed to the Baltic countries. *Arleigh Burke*-class air and missile defense capable destroyers have been deployed to the Black Sea. The first elements of the European Phased Adaptive Approach that will provide enhanced theater missile defense for the continent have entered operational status. In response to Breedlove's requests that the administration and Congress reverse planned reductions in the number of U.S. ground troops in Europe that would leave the U.S. Army with only two light infantry brigades forward deployed on the Continent, the decision was made to maintain a heavy brigade combat team on continuous rotation in Europe.

The NATO Alliance faces the practical and psychological problem of attempting to reverse more than 2 years of continuing deficits in both defense spending and strategic thought. For more than 2 decades, NATO spending on defense has declined to levels today that are perilously close to disarmament. Senior U.S. officials have repeatedly warned NATO that its failure to invest adequately and appropriately in defense, places the future of the Alliance at risk. In 2011, SECDEF Robert Gates called on NATO to invest its defense resources both more wisely and strategically. Yet, overall spending on defense by NATO members continued to decline, forces were cut, and military

modernization programs were deferred or canceled. In addition, NATO never invested sufficiently in critical enablers or in the logistics, sustainment, and command and control capabilities in Eastern Europe necessary if that part of the Alliance was to be defended against Russian military threats.⁶⁰

Some NATO members are taking significant steps to improve their defensive capabilities. Finland will soon hold a national referendum to determine whether it should join NATO. Poland, one of the few NATO members to spend 2 percent of GDP on defense, is moving forward with its plan to deploy an advanced medium-range air defense system. Because of technical dialogues with Western companies, Poland has decided to conduct a competition between the Raytheon Company's Patriot air defense system and the SAMP/T produced by the EUROSAM consortium.

The recent NATO Summits in Wales and Warsaw primarily sought to provide some concrete measures to reassure the member states in the East that they too would be defended. The Wales Declaration on the Transatlantic Bond tied the classic collective defense obligation under Article V to the broader definition of a threat to members' security in Article IV. The Wales Summit identified Russia as "a major threat to Euro-Atlantic security," affirmed the continuing presence of NATO forces in Poland and the Baltic States, and announced the creation of a Very High Readiness Joint Task Force intended to be deployable within a few days of a decision to do so.⁶¹ The Warsaw Summit reaffirmed these declarations and objectives and committed to the full-time presence of four battalions of NATO ground troops on the territory of the Baltic States. While obviously insufficient to defend these states against a Russian conventional assault, these

four battalions are the first concrete evidence of the Alliance's determination to confront the Russian threat to use force with actual military units.

These new deployments may not be as large as some analysts argue they need to be to ensure that a major attack on the Baltic States is a high-risk gambit for the Kremlin. Yet the battalions will reduce the already low possibility of such an attack, while improving defenses against the surreptitious forms of aggression Russia has sponsored in Ukraine — often referred to as “hybrid war.” Also, four battalions is far more than most observers would have thought possible coming out of the last NATO summit in September 2014.⁶²

Yet, as many long-time NATO watchers have observed, the Alliance has a history of promising more than the member states have been able or willing to deliver. Moreover, even if these shortcomings, plus other proposed measures did provide the necessary tripwire to deter a Russian conventional attack on the Baltic States, they and the other initiatives that have been taken in Warsaw fail to address the two other threats posed by Moscow adequately. The additional threats are: first, the so-called hybrid threats similar in character to those employed against Crimea and Ukraine; and, second, the threat of first use of theater nuclear weapons in response to a NATO conventional move to counter Russian aggression.⁶³

Given these negative trends, it is important to acknowledge when the West does stand up to Moscow. In May 2016, the United States turned on its first operational ballistic missile defense site in Romania. Washington went ahead with this deployment, part of what is called the European Phased Adaptive Approach, despite persistent complaints by Moscow and even strident threats that it might respond by employing

tactical nuclear weapons against any European missile defense capabilities. The Romanian site is the first of two planned deployments of the Aegis Ashore system that relies on the proven SPY-1 radar and advanced versions of the Standard Missile 3. While this system cannot interfere with the launch of Russian ICBMs or submarine-launched ballistic missiles (SLBMs), it can defend Europe against ballistic missiles coming out of the Middle East. This deployment on land complements the earlier stationing in a Spanish port of four Aegis destroyers with the Ballistic Missile Defense System and Standard Missile-3s.

Even though Obama canceled his predecessor's plan for the deployment of a more capable missile defense system in Central Europe and even eliminated from his own plans the development of a Standard Missile variant, capable of intercepting ICBMs, the Russians have been relentless in their criticism of U.S. and European plans to deploy missile defenses. U.S. diplomats have talked themselves hoarse attempting to convince Russian officials that the planned sites pose no threat to the Russian strategic deterrent. The reason for this is that the Kremlin needs Europe to be defenseless in order to implement its strategy of political intimidation and nuclear coercion.

Russia is playing a very weak hand. There is no way that Moscow can win a protracted Cold War or even a conventional confrontation with an Alliance that has 20 times Russia's GDP and 4 times its conventional military power. This is a major reason that it places such heavy reliance on its nuclear forces for deterrence and on threats to use nuclear weapons to dominate a local crisis. Russia hopes that, should such a crisis occur, NATO will accept a small defeat, rather than risk a big war. It is primarily with the goal of

intimidation in mind that Russia has devoted so many scarce resources to developing advanced ballistic and cruise missile capabilities. This is why it has gone to great effort and expense to launch cruise missiles against the Islamic State of Iraq and Syria (ISIS) targets from both the Caspian and Eastern Mediterranean. The real target of these attacks is the will of NATO's leadership.

It is important to recognize that the challenge facing NATO and the United States is not from any particular element of Russian power—asymmetric, hybrid, conventional, or nuclear. Nor is it the Russian nation or its leadership. Rather, it is to defeat Putin's strategy for what Keir Giles calls *breakout*, thereby denying Moscow the ability to disrupt the existing international order at minimum risk and an acceptable price.

Post-Soviet Russia is no longer a status quo power centered on preserving Russia's place in the security order through static, no change policies and the static presence of forces in frozen conflicts. Russia today is a system change power. Putin's breakout strategy is designed to destabilize, and the approach seeks to unfreeze frozen conflicts, break rules, and foster tensions where useful to accelerate the melting away of Europe's proven security principles and rules. Putin gains little for Russia's security today from these actions. It is a carefully developed policy and strategy. It is not a carefully balanced strategy. It shows scant regard for the instability created by this policy – that is the intent of the policy. It is a strategy designed to test wills and determine who will tire first and compromise on the principles of security. These actions set Russia, and consequently Europe with it, on a course to compete over Europe's future security arrangements.⁶⁴

The challenge is both political and military and responses need to be in both spheres. The political challenge is perhaps more difficult because it requires that

the West accept the reality that Putin views the West as an existential threat to his regime and his country. It also means that the West must respond to the Kremlin's efforts to use nontraditional and military means to destabilize NATO and the EU with similar measures against Russia and its allies.

Are Russia and the West doomed to an endless, Sisyphian cycle of escalation and retaliation? The answer is no, and that is because even Putin (an autocrat by any reasonable standard) is constrained by public opinion. Despite his regime's heavy-handed control over the Russian media, electoral arena, and various branches of government, Putin cannot sustain military adventurism abroad in the absence of support at home. Thus, if the West is to curb Russia's aggression, it must increase the political costs of that aggression via economic and diplomatic means. This could involve strengthening current sanctions, or placing extra pressure on the Assad regime in Syria, potentially forcing Putin to choose between warmongering and domestic political support.⁶⁵

Recommendations for Winning the Political and Information Wars

The political portion of a new NATO and U.S. playbook for dealing with Putin is itself, like Gaul, divided into three parts. First, additional steps must be taken to reverse perceptions of a lack of commitment, on the part of NATO, to the defense of its members and, specifically, to treating so-called gray zone attacks as subject to an Alliance response. Second, much more needs to be done to shore up nations in NATO and the EU that were, and remain, politically and organizationally fragile (Ukraine is an example of how bad it can get). Third, there must be an intensified effort to apply the same tactics and concepts central to the new Russian strategy against Moscow.

NATO also should act to demonstrate its resolve to ensure not only the physical security but also the independence and full sovereignty of all its members, in the face of the threat of political subversion. First, NATO clearly and formally needs to reject the Russian assertion of special rights and responsibilities for the well-being of the so-called near abroad. Actions taken by Russia in the name of assisting ethnic Russians outside that nation's borders should be treated as a violation of Article IV. Second, if NATO lowers the bar with respect to its commitment to employ Alliance assets in its defense against threats, then it must also possess the capabilities to affect the necessary response. A senior U.S. defense official described the kinds of capabilities NATO needs to develop this way:

At a minimum, NATO should take steps now to complement its large-scale conventional preparedness with a new focus on enhancing and integrating police capability and building local security capacity. Much of this can be accomplished by pairing NATO forces with paramilitary and police units cross-nationally. This training and information exchange should focus on continuity of communications (especially under cyber-attack), information sharing across different components of civil defense, urban operations, and scenario-based planning and exercises. The integration of cheap, unmanned aerial surveillance should be explored for local policing, as should proper procedures for use of elements of the military in times of domestic crisis. Large, conventional military exercises should be intermixed with small, quick-tempo policing drills that much more accurately reflect the real threat environment and, importantly, that help develop common operating practices among various civil security institutions for responding to these threats and integrating with military forces.⁶⁶

Over the past decade or more, the United States and several of its key allies have developed unparalleled capabilities to counter the threat posed by unconventional forces operating in the midst of civilian populations while receiving significant external support. The experience of U.S. and Coalition SOF to target terrorists, insurgents, and agitators has been well demonstrated. What is not as well recognized is the experience gained in creating and operating all-source intelligence collection cells using state-of-the-art tools to attack the network. The U.S. Joint-Improvised Threat Defeat Organization has a remarkable set of capabilities and skilled practitioners who have honed their skills in the effort to attack the networks that provide financing, materials, operatives, and propaganda in support of terrorist organizations such as ISIS and al-Qaeda. These same capabilities could be brought to bear on the problem of detecting, tracking, and characterizing Russian intelligence and operations networks.

NATO and the EU need to invest in an array of public information assets for the purpose of countering Russian disinformation warfare and deception operations targeted at the nations of Europe. There have been some efforts in this regard with respect to cyber threats. NATO and the EU need to set up information cells to track Russian disinformation campaigns. These cells should also possess a quick reaction capability to counter Russian disinformation and propaganda rapidly. A number of European nations have national legislation or regulations designed to ensure that information carried in the media is reliable and objective. The penalties for knowingly providing false or misleading information should be made tougher and include not only fines but also suspension of licenses to operate.⁶⁷ Beyond these things, efforts to combat

corruption, improve effective and honest governance, build credible partnership capacity, and integrate minorities need to be significantly increased.

Virtually all of the political measures that need to be implemented to counter Russian efforts to destabilize Europe and undermine its collective organizations are defensive in nature. What has received almost no attention is the potential to conduct an information campaign against Moscow and the Kremlin regime. In 2015, the House Armed Services Committee sought to add \$30 million to the budget for U.S. Special Operations Command for the purpose of expanding “global inform and influence activities” against Russia and terrorist groups like al-Qaeda and ISIS.⁶⁸ Much more than this is needed. Moreover, the money should go to an organization dedicated to countering hostile information operations; it should not go to combat units.

A Western version of WikiLeaks directed at exposing corruption and the criminal behavior of the Russian elite could have a devastating impact on the Kremlin’s domestic credibility. Russia is expected to continue to refine and improve its techniques for information operations, including expanding its use of social media. It would make tremendous sense for the West to exercise its enormous capabilities to do the same.⁶⁹ This instrument of strategy and power needs to be developed to break through Putin’s information blockade of Russia from the West and bring home the information war to Russia itself.

It is clear that, while much of the effort to manage Putin’s perceptions and the Kremlin’s attempts to undermine the current international system will depend on the adroit employment of political, economic, informational, and other non-military instruments of policy, these must have a sturdy bodyguard

of credible military capabilities if the new Cold War is not to turn hot.

Committing to limiting the damage done by the new Cold War does not mean that the West should tolerate Russian attempts to control events in Europe's new lands in between by abetting political instability or using military force. If the United States and its European allies cannot find a way to thwart this Russian temptation—through credible military threats, if necessary—the new Cold War will only deepen.⁷⁰

Conducting Economic Warfare in a Globalized Age

The U.S. Senate passed a Russia sanctions bill in 2017 that directly targets key sectors of the Russian economy as well as that country's dependence on external sources of financing and technology to maintain its tottering energy export infrastructure.⁷¹ Without access to Western credits and technology, Russian energy exports—those to Europe in particular—are bound to decline. Therefore it is important to consider additional economic measures that can be used either to deter Russian activities or as a way of diminishing the capability of Moscow to pursue its objectives. Further restrictions on Russia's access to capital markets, limits on the ability of oil and gas companies to import equipment and parts, and expanded efforts to track and even limit outflows of capital from Russia could have a very significant impact on the interests of the kleptocracy and the operation of the overall economy. In addition, Russia today is highly dependent on foreign sources of advanced technology for its defense industry. The creation of a new version of the Cold War-era Coordinating Committee for Multilateral Export Controls, known as CoCom, should be

explored with the idea of restricting access to dual use and military goods.⁷²

The dependence of the Russian economy and the wealth of the kleptocracy on energy exports make it a potentially central battlefield in the struggle to contain Moscow. There are particular features of the Russian energy economy and, in particular, the transportation routes for oil and natural gas that create points of vulnerability that the West can exploit. Russia must sell much of its oil and gas in and through European markets and pipelines.

At the same time, the West now has a new tool for countering Moscow's energy strategy—shale oil. The increased production of shale oil in the United States has naturally led the search for overseas energy markets. Western and Eastern Europe are potential major markets for U.S. energy exports in the form of liquefied natural gas (LNG). In June 2017, Poland received its first shipment of U.S. LNG.⁷³ LNG exports to the Baltic States are of particular interest to EU and NATO leaders, given that region's overwhelming dependence on Russian energy.

Competing with Russia for the European natural gas market requires a long-term focused plan to create the infrastructure that would support significantly expanded sales from the United States to Europe. LNG terminals are being constructed along the U.S. Gulf Coast. Additional receiving terminals in Europe need to be built. Governments should look to providing loan guarantees to support such construction efforts. The Trump administration might consider investments in energy export terminals as part of its overall plan for infrastructure investments.

Russia has threatened a price war with the United States as a means of retaining its dominant position in

energy exports to Europe.⁷⁴ Even if Russia were able to undercut U.S. prices, which are by no means certain, such a price war would come largely at Moscow's expense. Reduced energy export prices mean fewer resources for the Russian military and less graft to line the pockets of the kleptocracy.

An energy-centric strategy for countering Russian influence should also focus on Ukraine. Success in the long-term competition between Europe and Russia over Ukraine is more about economics than it is about politics or military security. Russia does not want a war with the West over Ukraine. It hopes to achieve its ends through subversion, political manipulation, and, most importantly, economic coercion. If Kiev is to resist Moscow's efforts to destabilize Ukraine successfully, its economy must be put on a sounder footing. This is clearly not in Russia's interest, but it certainly is in the interest of the United States and its European allies.

The economic contest between Russia and the West will be played out primarily on a single battlefield: energy economics. Today, Ukraine still depends in part on Russian natural gas for its heat and light. Russia uses this dependence as a weapon. Russia has imposed large increases in the price of natural gas to Ukraine. It has threatened to cut off the supply of gas to Ukraine unless it pays past bills in cash. Russia also has used its natural gas monopoly to destabilize Ukraine politically. Cheap natural gas undermines the domestic demand for Ukrainian coal mined in the Donbass. Workers in the coal mines do not stand in barricades; unemployed miners do. No wonder the eastern provinces of Ukraine are so unhappy with the government in Kiev, despite the fact the true architect of their misery resides in Moscow.

The Ukrainian energy infrastructure is obsolescent and inefficient. About a third of the natural gas bought from Russia is wasted, primarily through leakage from broken pipelines but, also, because of the poor state of Ukraine's gas-fired power plants. This is not only extremely costly but also a major source of methane emissions. Methane is 26 times more harmful as a greenhouse gas than CO₂. Helping Ukraine modernize its power generation capabilities is a win for European security, Ukraine's economy, and the environment.

Thankfully, the energy economics battlefield is one where the United States holds two major asymmetric advantages: energy technology and financing. Wielded together, in a coherent strategy, these two weapons could almost immediately soften the impact of Russian economic warfare against Ukraine and also help the overall economic situation in that country. In the longer term, the objective of a U.S. energy strategy should be to deny Russia the ability to use energy as a weapon against Ukraine and all of Europe.

The place to start is by switching Ukraine's obsolescent large combined heat and power (CHP) generation facilities from Russian natural gas to domestically mined coal using modern, clean, and efficient U.S. energy technology. The Kiev government has proposed an initial project to convert its five largest CHP plants. This program would increase plant efficiency, save \$1.4 billion annually, reduce net emissions, provide jobs for Ukrainian coal miners and U.S. high-tech workers, and reduce Russian leverage. It would also send a powerful, non-military message to Moscow that the United States intends to counter Russian economic warfare with its own economic and technological leverage.

Moscow has explored turning east and exporting its energy to the growing nations of East Asia. While such a move might solve Russia's export earnings requirement, it would create two strategic problems for Moscow. First, it would reduce a means of political leverage over Europe, particularly some of the new members of the NATO Alliance. Second, and possibly more significant, it would tie Russia's future to the beneficence of China. For several decades, Russia has danced around the difficulties of establishing a closer security relationship with China out of fear of becoming the junior partner in such a relationship. Russian dependence on Chinese energy markets would further complicate Moscow's efforts to reassert its great power status in the world.

Re-establishing Basic Conventional Military Deterrence in Europe

What are the roles of Russian military forces in the Kremlin's strategic campaign to restructure the European political landscape? Clearly, the first role is to defend the Russian state from the threat that is alleged to manifest from the West. This threat is both real, inherent in the conventional and nuclear capabilities of the Western alliance, and virtual, because it is deterring Russia from taking the steps it deems necessary in other spheres to achieve its strategic goals. The Russian national security strategy and defense doctrine see Western use of military force as primarily a counterweight to political, social, and economic developments that favor Russia and other non-status-quo nations. Thus, the second critical role of Russian military power is to deter the West's ability to employ military force as a kind of fire brigade to snuff out the

flames of change. In essence, military power is the shield beneath which other measures, so-called hybrid actions, can be successfully undertaken with little risk of escalation to war.

In reality, the Russian military possesses only a limited capability for offensive operations. The units capable of dealing with local conflicts amount in total to some 100-150,000 troops, a mixture of airborne, naval infantry, special forces, mechanized infantry, and air defense units. These forces could easily be consumed in dealing with a single regional contingency. Military reforms eliminated virtually all skeleton units. This improved the effectiveness and efficiency of the first echelon forces, but left the Russian military with no depth. If the first attacks are not successful, there is no second string to the violin.⁷⁵

Even in a single regional operation, Russian commanders will be highly dependent on the combination of pre-positioned capabilities; rapid, decisive strikes by long-range, precision, conventional strikes; EW; and cyberattacks and high-speed movement by select armored formations, airborne brigades, and special operations units. The goals are to eliminate forward deployed targets, paralyze political and military responses, and create new facts on the ground rapidly. Nuclear weapons serve to provide a deterrent against NATO efforts to conduct a counter-attack.⁷⁶

It is important to recall that NATO's defense strategy during the Cold War was never predicated on a successful defense of the East-West border. The maintenance of NATO brigades in West Berlin was not based on a belief that these forces were sufficient to mount a serious defense of the city. The purpose of NATO's conventional defenses was to prevent a rapid victory by Russian/Warsaw Pact forces and to compel the

Kremlin leadership to confront the risks of escalation at an early point in such a conflict. With the addition of AirLand Battle and the deployment of precision, long-range stealth aircraft and ballistic and cruise missiles in Europe, NATO's strategy shifted from one of deterrence by denial to that of cost imposition, which was on disrupting the Soviet second echelon and holding critical targets at risk in the Western Military Districts.

Today, NATO needs forces on the ground, particularly in Eastern Europe and the Baltics that can prevent an early, one-time victory. Russia cannot fight a large-scale or protracted conventional conflict. Nor can it stand nuclear exchange. Therefore, Moscow must be made to realize that it will have no easy, cheap military victories. The risk of escalation must be on Russia's back. With these strategic goals in mind, the West needs to be able to: first, absorb and ride out a Russian, initial, conventional attack; and, second, to conduct a series of operations to degrade and even defeat Russian forces in the Western Military District. The West must also rebuild its nuclear capabilities in order to establish a credible escalatory ladder.

Of all the Services, the U.S. Army is most challenged by the mission of re-establishing a credible deterrent against Russian conventional aggression in Europe. The Army is the least ready to engage in high-end conflict; in a 2017 testimony, then-Vice Chief of the Army General Daniel Allyn admitted that:

Today, only about 1/3 of our BCTs, 1/4 of our Combat Aviation Brigades and half of our Division Headquarters are ready. Of the BCTs that are ready, only three could be called upon to fight tonight in the event of a crisis. In total, only about 2/3 of the Army's initial critical formations—the formations we would need at the outset of a major conflict—are at acceptable levels of readiness

to conduct sustained ground combat in a full spectrum environment against a highly lethal hybrid threat or near-peer adversary.⁷⁷

In addition to being unready, the U.S. Army is also mal-deployed and inadequately equipped for the kind of conflict it would face with the Russian Army. Simply put, the Army needs to have more combat capability deployed forward, close to the zone of conflict. At the time of this writing, the U.S. Army currently has only three brigade combat teams on the continent, one of which is a rotational armored brigade. It will soon also conduct “heel-to-toe” rotations of a Combat Aviation Brigade. Over the next 5 years, based on the availability of funding under the European Reassurance Initiative, the Army plans to deploy many of the elements of an armored corps back to Europe, at least on a rotational basis.⁷⁸ In addition, the Army plans to expand exiting prepositioned equipment stocks in Europe to include two divisional equipment sets, each of which would include a Division Headquarters, one Armored Brigade Combat Team, a Fires Brigade, a Sustainment Brigade, and associated enablers.⁷⁹ Taken together, the U.S. Army is on a path to be able to generate a full heavy corps worth of forces in Europe within 5 years.

In addition to increasing the overall capacity of U.S. ground forces in Europe, the Army must also take steps to improve their capabilities through selective modernization. The Army has identified a number of critical capability gaps which it is endeavoring to address. These include: air and missile defense; long-range fires; munitions; jam resistant position, navigation, and timing; electronic warfare; cyber; assured communications; and active protection for armored fighting vehicles.⁸⁰

The Army also needs to modernize its existing combat power. It has taken a first step in this direction with the Stryker Lethality Upgrade. However, the pace at which it is modernizing the Strykers, Abrams tank, Bradley Fighting Vehicle, and Paladin mobile artillery system is excruciatingly slow.

On its present course, the U.S. Army will lack the modern equipment and organization necessary to deter or, if necessary, defeat a high-end adversary. The U.S. Army needs to rebuild its capabilities to engage in high-end combat that made it the most feared competitor in the world. This involves restoring the technological, tactical and operational superiority developed over decades. What the Army must do is maximize the potential of existing platforms and systems. There are programs in place to enhance the capabilities of virtually all the Army's armored fighting vehicles, long-range fire systems and aircraft. Near-term modernization also is being pursued in unmanned aerial vehicles, soldier capabilities and on-the-move communications. What is problematic is the scale and pace of these programs.⁸¹

The problem is not technology or an available industrial base. It is a matter of money. The current plan is to upgrade critical combat formations over a 5-year period. This interval could be cut in half were even modest additional funding available. Given that this is possibly the most important near-term modernization effort across the entire U.S. military, everything must be done to provide the requisite funding.

While many commentaries on NATO military responses to the threat of Russian aggression against Europe have focused on the need for ground force deployments in the East, there are other investments that are more important and deserve priority. First is improved ISR and targeting capabilities. NATO deficits in this area are nothing new. Former SECDEF

Gates warned NATO leaders years ago regarding the need for greater investments in ISR, both platforms and analytic capabilities.

In particular, intelligence, surveillance, and reconnaissance assets are lacking that would allow more allies to be involved and make an impact. The most advanced fighter aircraft are little use if allies do not have the means to identify, process, and strike targets as part of an integrated campaign. To run the air campaign, the NATO air operations center in Italy required a major augmentation of targeting specialists, mainly from the U.S., to do the job—a ‘just in time’ infusion of personnel that may not always be available in future contingencies. We have the spectacle of an air operations center designed to handle more than 300 sorties a day struggling to launch about 150.⁸²

In his testimony before the Senate Armed Services Committee in April 2015, then-Supreme Allied Commander Breedlove argued that Russian military operations over the past year in Ukraine, and the region more broadly, have underscored that there are critical gaps in intelligence collection and analysis. Some Russian military exercises have caught the Alliance by surprise. The Alliance’s knowledge of Russian involvement on the ground in Ukraine has been quite limited.⁸³ NATO has been slow to invest in airborne ISR assets and U.S. capabilities have been drawn away from Europe due to the pivot to Asia and the growing fight against ISIS. In addition, NATO needs to undertake a Manhattan Project to reconstitute its analytical capability to process and exploit intelligence on Russian military capabilities and operations.

NATO’s air power will be one of the most significant factors in deterring Russian aggression and countering the military elements of its evolving hybrid

strategy. Air power is the most flexible military instrument available to the Alliance. Air power will be critical to the destruction of the A2/AD enclaves Russia has built in Kaliningrad and elsewhere.

How do we keep deterrence from eroding? A mix of the new and the old. Technology and training will lead the way. The more you stare at the Baltic high-end fight the more obvious it becomes that this is a battle decided by whether or not NATO airpower can overcome Russian air defenses. NATO is unsuited to take on Russian landpower, while Russian forces are highly vulnerable without their layered air defense. Although airpower heavy, this is a joint force mission in which all services have a role whether they like it or not (some, like the Army, may want it too much). However, our Army may not be what wins the fight, but it is what glues this effort together. While that force needs modernization, it's the Air Force that has severe technical and training holes that the Pentagon needs to fill if we are to make the Baltic high-end fight work.⁸⁴

Western military leaders have acknowledged the need both to improve the equipment available to NATO air forces and to train pilots, ground crews, and mission planners for the high-stress missions involved in air operations in Central and Eastern Europe. According to Breedlove:

We built tactics around a permissive environment. Now we'll have to adapt those tactics to get through the initial stage of a battle, where we fight down the integrated air defenses, we establish air superiority, and then we can reinsert our more permissive tactics.⁸⁵

One of the most important investments NATO needs to make to improve its combat power and deter Russia is in logistics and infrastructure. NATO requires a robust, hardened, dispersed, and defended air power

infrastructure in Eastern Europe. This is a particularly important goal in light of the investments Russia has made in long-range strike capabilities intended to suppress NATO infrastructure.

For U.S. air power to be effective against Russian air defense networks elsewhere in the world, its base infrastructure needs to be survivable through a combination of dispersion, hardening and defenses. It also needs an integrated air defense system that combines long-range surveillance with effective surface-to-air missile defenses. Achieving significant results against ground targets requires large-scale reinforcement with strike aircraft supported by escorting fighters and electronic countermeasure aircraft, and a close integration with long-range, ground-based artillery capable of suppressing enemy air defenses with area fires.⁸⁶

Former Commander of U.S. Air Forces in Europe Gorenc has made a point of the need for expanded airfield development in Eastern Europe:

'We already had a pretty robust training regime in Europe with our partners and allies, but this will allow us to do another aspect that I am keen on and that is continuing to develop the airfields, particularly on the Eastern side of NATO—the Baltic Republics, Poland, Romania and Bulgaria,' he said. 'This will allow for an easier place to go, to accomplish high-volume, high-velocity operations.'⁸⁷

Russian military leaders know that if they cannot execute a disarming, conventional first strike against NATO, they will lose the war. It makes no sense for NATO to deploy forces and stockpiles in Eastern Europe if they are vulnerable to a surprise conventional first strike.

It is vitally important that NATO make the move to fifth generation air power. The continuing commitment by the United Kingdom, Canada, Italy, Turkey,

the Netherlands, and Norway to the international program for the F-35 Joint Strike Fighter holds the prospect for a quantum improvement in NATO's air defense and strike capabilities. The introduction of the F-35 will constitute a game changer in the balance of air power in Europe.

NATO allies have long suffered from a deficit of deployable land combat power. There are far too many NATO units that lack the readiness and support to be sent to a conflict originating in Eastern Europe. In addition, virtually every member of the Alliance has made insufficient investments in capabilities that will be critical to countering advances in Russian military capabilities. NATO nations should prioritize modernization efforts in five capability categories over the next 5 years.

Readiness and Training

NATO needs not merely a Very High Readiness Task Force of limited size and capability but a deployable corps of at least 100,000. This force must not only be continuously training for high intensity combat but also possess a full set of enablers, spare parts, munitions, and other resources. Investment in forward logistics infrastructure in Eastern Europe is absolutely vital.

Enhanced Lethality

The challenge NATO faces in Eastern Europe is fighting a high intensity conflict against a well-protected and lethal adversary. The Alliance must improve the lethality of its existing armored fighting vehicles and indirect fire systems. The DoD, responding to an urgent operational needs statement from U.S. Army

Europe, decided to up-gun one Stryker brigade with a new 30 millimeter cannon. However, it plans to rest on its laurels for 3 years before doing another one. Instead, it should up-gun at least a brigade a year. Proposals to add Javelin missiles to Stryker vehicles need to receive a quick evaluation.

NATO allies need to explore ways of improving the anti-armor capabilities of its existing fleets of infantry fighting vehicles and tanks. In addition, the allies badly need new precision munitions for their artillery, multiple launch rocket, and mortar systems to defeat both enemy armor, rocket launchers, and massed artillery.

Improved Force Protection

After a decade of learning how to defend against improvised explosive devices (IEDs), it is time for the Alliance to move forward to defend itself from ground and air threats that are increasingly more sophisticated. The U.S. Army will conduct tests this year of active protection systems for its armored fighting vehicles. Russia is believed to have deployed such a system on some of its most modern battle tanks. Such a system could change the offense-defense equation between NATO and Russian forces.

Similarly, NATO land forces need to become responsible for defending themselves against air and missile threats. NATO needs to focus on tactical defenses against manned aircraft, helicopters, drones, and even rockets and artillery projectiles. The U.S. Army has been pursuing improved defenses against threats from and through the air with its multi-mission launcher that can support the advanced medium-range air-to-air anti-aircraft missile (AMRAAM) as well as a future miniature hit-to-kill interceptor to

counter rockets, artillery, and mortars. Area defense could be achieved by acquiring the combat-proven Israeli Iron Dome system. An even more effective and lower cost solution would be a tactical laser, which has been developed and tested by a number of U.S. and European defense firms.

Aviation Upgrades

The Russian Army has invested in advanced, extremely effective ground attack helicopters, notably the KA-50 and KA-52. Given the high-speed nature of modern conventional combat with forces widely distributed, attack helicopters are likely to play an increasingly important role. There is no time to introduce new or even modernized helicopters into NATO's aviation fleets. The United States and its allies need to examine their current force sizing constructs for rotary wing aviation and, where necessary, increase the size of those forces. In addition, efforts need to be taken to identify ways of arming transport and light helicopters in order to multiply the fire potential of aviation units.

Electronic Warfare (Even More than Cyber)

Perhaps it could be true, to paraphrase former U.S. Secretary of State Henry Stimson, that gentlemen do not jam each other's communications. However, the Russians do. Russian operations against Georgia, Crimea, and Eastern Ukraine have shown a very sophisticated ability to manipulate and jam private, government, and military communications and weapons systems that depend on navigation signals to reach their target. Former Commander U.S. Army Europe Lieutenant General Ben Hodges described the Russian electronic warfare (EW) capabilities as "eye watering."

NATO's EW challenge is not simply technological. Essentially, Western armies got out of the EW game at the end of the Cold War. They returned to the subject, if at all, only insofar as this was part of the effort to counter terrorist radio-triggered IEDs. There is a lack of systems, personnel, and concepts of operations to conduct modern EW adequately. This situation must be corrected.

Precision Munitions

Finally, NATO needs to make a major investment in precision munitions. NATO allies have consistently underinvested in precision munitions. During the Libyan operation, the allies simply ran out of weapons and had to go "hat-in-hand" to the United States. However, the increasing demand for precision munitions in the war on ISIS is depleting U.S. inventories. Advanced aircraft without sufficient munitions, both air-to-air and air-to-ground, are essentially useless.⁸⁸

One of the most vexing capabilities in the Russian arsenal is its integrated air defense system. NATO needs to develop and deploy a similar capability that will protect critical infrastructure and deny Russia a disarming, conventional first strike capability. The initial step toward this capability has already taken place with the first Aegis Ashore missile defense site becoming operational in May 2016 in Romania. For several years now, Russia has been on the march in Europe and elsewhere, undermining the political and economic systems of neighboring countries, intimidating their legitimate governments, seizing their territory, and alarming America's allies and friends. This is a pattern seen repeatedly, from Central Asia and the Caucasus to Eastern Europe and, most recently,

the Middle East. The Kremlin spent years preparing to seize Crimea and Eastern Ukraine, bribing local officials, penetrating that country's services, and engaging in cyber espionage.

NATO is just at the beginning of the deployment of its European missile defense architecture, but only two sites are planned. In truth, NATO needs a dozen or more such sites, a combination of the Aegis/Standard Missile-3 system and Terminal High Altitude Area Defense batteries. In addition, NATO should invest in a Continent-wide defense against advanced air breathing threats, such as that provided by the U.S. Patriot system and the German-Italian Medium Extended Air Defense System with broad applicability across Europe. Investments in advanced fighter aircraft such as the F-35 will contribute both to NATO's defense against air breathing threats and to its counteroffensive potential.

Maintaining a Robust Nuclear Deterrent

An additional area that the Alliance must address is the modernization of its nuclear forces and doctrines. NATO and the United States must accept as an absolute priority the need to recreate a solid, credible, and capable escalation ladder, which must be clear and have capability at each rung. The United States has announced plans to modernize all three legs of its Nuclear Triad. The United Kingdom recently decided to renew its strategic deterrent. There are still serious questions regarding the potential of the fully modernized, Russian, strategic forces to successfully execute a disarming first strike.⁸⁹

Given the role of nuclear weapons in the Kremlin's strategy for breaking NATO and destabilizing Europe,

it is absolutely vital that the United States address its technological, operational, and strategic shortfalls in tactical and theater nuclear weapons. First, the modernization of the B61 gravity bombs needs to be accelerated. Second, the date at which the F-35 will be given nuclear delivery capabilities needs to be moved forward. Third, the United States needs to reconsider the deployment of sea-based nuclear cruise missiles. Fourth, given Russian violations of the INF Treaty and the possibility that Moscow will withdraw from that treaty, the United States needs to develop an appropriate response to Moscow's decision to deploy a new class of intermediate range ballistic and cruise missiles. The Kremlin must be convinced that an attempt to de-escalate a conventional conflict through the limited use of small-yield precision nuclear weapons will be met with a response in kind.

The United States and NATO need to reconsider their strategies for nuclear deterrence at the theater and strategic levels. What role should Western nuclear forces play in countering the Russian threat of the coercive or political use of nuclear weapons? How should the United States respond to the first use of nuclear weapons in space? One of this country's preeminent nuclear strategists, Dr. Keith Payne, rightly observed in testimony before the Senate Armed Services Committee that, in addition to modernizing the nuclear triad, the United States should consider development of new nuclear capabilities:

the development of 'new' US nuclear capabilities should not be ruled out peremptorily by policy. Increased US nuclear force numbers may well be unnecessary, but there are some plausible capabilities that could help reduce Moscow's perceptions of exploitable advantages. It should be recalled that then-Commander of STRATCOM,

General Kevin Chilton, observed publicly that the US nuclear force posture deemed adequate for the 2010 NPR [nuclear posture review] was predicated on the assumptions that Russia would abide by its arms control treaty commitments, and that there would be no call for additional capabilities. The Russians have since violated the former assumption, and the latter is now an open question given Moscow's expansionism, buildup of new nuclear forces, and dangerous views of escalation.⁹⁰

CONCLUDING OBSERVATIONS

Russia's Government is beset by internal contradictions and challenges that can only grow worse with time. The Kremlin's incentives to pursue a breakout from the strictures of the current international order will remain high. The strategic challenge is balanced between measures needed to deter and deny, military and non-military, and pushing Russia to the edge. This is likely to prove difficult given the Kremlin's need to externalize all of its internal dysfunctions. Russian sources are already characterizing NATO efforts to bolster the defense of the Baltic States as provocative and part of the Western effort to threaten Russia.

Nevertheless, it is absolutely vital that Moscow be under no illusions that its efforts to use force of any kind to attack the sovereignty of individual countries in Europe and to disrupt the stability of the current international order by seeking to undermine the current set of alliances and multilateral arrangements will be resisted. This includes the use of all national instruments of power including military force. The Russian Government must be convinced that the threats it faces internally, political, economic, or otherwise, are less threatening to regime survival than an attempt to go to war with the West.

Ultimately, the challenge posed by the Kremlin's strategy for undermining NATO and European independence is a function, less of Russian actions, and more a matter of the political will of the West. Increases in defense spending levels by the major NATO nations of a half or even a quarter percent of GDP would unite the Alliance and make clear to Russia that the West will defend itself. The threat Russia poses to NATO is more a result of the weakness of the latter than the strength or determination of the former.

The continued ambiguity of NATO's response to Russian military pressure along the periphery suggests that, notwithstanding the steadfast declarations of commitment to the deterrence-cum-defense of the Baltic States and Central Europe, NATO's political leadership seems willing to risk Europe's security on the premise that Russia will not attack across the alliance redline. Yet this assessment is difficult to justify in light of the record of the strategic and operational realities in the region. NATO needs to be prepared for Putin to act on a continuum of the escalatory ladder, from the lowest level all the way to a full-on military conflict. But there are serious reasons to question whether in fact the allied efforts at deterrence and defense are credible, and if in fact NATO can respond in solidarity should a crisis along the northeastern frontier materialize. The problem is that the alliance's current capabilities and plans fall short of meeting these objectives even part way. This is especially true about Russian anti-aircraft and anti-ship missiles, both land and sea-based, the deployment of which has made it virtually impossible under the present disposition of NATO forces for the alliance to operate in the Baltic, all but rendering the sea a self-contained Russian enclave. Most importantly, current planning fails to address the unacknowledged elephant in the room: the threat of Russian nuclear weapons, whereby 'first use' is now embedded in Russian 2014 military strategy.⁹¹

ENDNOTES - CHAPTER 2

1. Winston Churchill, "The Russian Enigma," (original) BBC Broadcast, London, UK, October 1, 1939, transcript archived with The Churchill Society, available from <http://www.churchill-society-london.org.uk/RusnEnig.html>.

2. Stephen Blank, "A Clinic on Clausewitz: Lessons of Russia's Syria Campaign," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016, p. 6.

3. Unnamed DoD official, National Defense University-Lawrence Livermore Laboratory Conference, Washington, DC, July 16, 2016.

4. Andrew Monaghan, "The Russian *Vertikal*: the Tandem, Power and the Elections," Russia and Eurasia Programme Paper REP 2011/01, London, UK: Chatham House, June 2011.

5. Karen Dawisha, "Putin's Russia: A Conversation with Karen Dawisha," Law and Liberty, February 18, 2015, available from <http://www.libertylawsite.org/2015/02/18/putins-russia-a-conversation-with-karen-dawisha/>.

6. "The making of a neo-KGB State: Political power in Russia now lies with the FSB, the KGB's successor," *The Economist*, August 23, 2007.

7. Igor Soloviei's interview of Valery Solovey, "Нигде в мире шпионам не доверяют управлять государством - они профессиональные параноики», - российский политолог" ("Nowhere in the world are spies trusted to govern the state—because they are professional paranoids"), LB.ua, July 5, 2016, available from https://lb.ua/world/2016/07/05/339458_nigde_mire_shpionam_doveryayut.html.

8. Inge Snip, "Russia and the Caucasus: How Threats Can Be 'Securitized'—Analysis," *Eurasia Review*, June 25, 2011; Julie Wilhelmsen, *Russia's Securitization of Chechnya: How War Became Acceptable*, London, UK: Routledge Critical Terrorism Studies, 2016; Keith Chandler Prushankin, *Who's Afraid of the Lurking Bear: The Resecuritization of Russia in the Post-Crimean United States*

National Security Discourse, The Czech Republic, Charles University in Prague, 2017.

9. Zoe E. Smolen, *How Securitization Is Affecting the Relationship between the United States and Putin's Russia: A Study of Securitization vs. Authoritarianism*, University Honors Thesis, Portland, OR: Portland State University, 2014.

10. Blank, "A Clinic on Clausewitz," p. 10.

11. David Remnick, "Putin and the Exile," *The New Yorker*, April 28, 2014.

12. Donald N. Jensen, "Russia's Elites Battle Over a Shrinking Economic Pie," New York: Institute of Modern Russia, October 21, 2015, available from <http://imrussia.org/en/analysis/politics/2454-russia's-elites-battle-over-a-shrinking-economic-pie>.

13. Character Michael Corleone's quote, in Francis Ford Coppola, dir., *The Godfather*, Hollywood, CA: Paramount Home Video, 1972, available from <https://www.youtube.com/watch?v=Bo7zkd0kRS4>.

14. Sergei Guriev, "Political Origins and Implications of the Economic Crisis in Russia," in Leon Aron, ed., and Mikhail Dmitriev, Evgeny Gontmakher, Lev Gudkov, Sergei Guriev, Boris Makarenko, Alexey Malashenko, Dmitry Oreshkin, Kirill Rogov, and Natalia Zubarevich, auths., *Putin's Russia: How it Rose, How it is Maintained, and How it Might End*, Washington, DC: The American Enterprise Institute, May 2015.

15. Karen Dawisha, *Putin's Kleptocracy: Who Owns Russia?* New York: Simon and Shuster, 2014, p. 347.

16. Paul Goble, "Does Anyone In Russia Have Any Influence On Putin Anymore?" *Window on Eurasia - New Series*, July 14, 2016, available from <http://windowoneurasia2.blogspot.com/2016/07/does-anyone-in-russia-have-any.html>.

17. Evgeny Gontmakher, "Russian Federalism: Reality of Myth?" in Leon Aron, ed., and Mikhail Dmitriev, Evgeny Gontmakher, Lev Gudkov, Sergei Guriev, Boris Makarenko, Alexey Malashenko, Dmitry Oreshkin, Kirill Rogov, and Natalia

Zubarevich, auths., *Putin's Russia: How it Rose, How it is Maintained, and How it Might End*, Washington, DC: The American Enterprise Institute, May 2015.

18. Nikolai Petrov, "How Putin Changed the Balance of Power Among Russia's Elite," *The Moscow Times*, April 15, 2016; Ilan Berman, "Putin Consolidates Domestic Power," *World Affairs*, Winter 2016; Karina Orlova, "The Siloviki Shuffle: On His Majesty's Secret Services," *The American Interest*, June 29, 2016.

19. Stephen R. Covington, "Putin's Choices for Russia," Cambridge, MA: Belfer Center for Science and International Affairs, Harvard Kennedy School, August 2015.

20. R. Nicholas Burns and James L. Jones, Jr., *Restoring the Power and Purpose of the NATO Alliance*, Washington, DC: Atlantic Council, June 2016, p. 7.

21. Andrei Piontkovsky, "Россия - мутантное, фашистское государство" ("Russia is a mutant, fascist state"), Radio Vera, July 15, 2015, available from http://veracanada.fm/blogs/?page=post&blog=glavred&post_id=388.

22. Stephen J. Blank, "'No Need to Threaten Us, We Are Frightened of Ourselves,' Russia's Blueprint for a Police State, The New Security Strategy," in Stephen J. Blank and Richard Weitz, eds., *The Russian Military Today and Tomorrow: Essays in Memory of Mary Fitzgerald*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, July 2010.

23. Covington, p. 3.

24. Daniel Frey, "NATO and Russia: a Sisyphean Cycle of Escalation?" New York: Institute of Modern Russia, July 13, 2016, available from <https://imrussia.org/en/world/2590-nato-and-russia-a-sisyphean-cycle-of-escalation>.

25. Blank, "A Clinic on Clausewitz," p. 17.

26. Mark Galeotti and Anna Arutunyan, "Hybrid Business—The Risks in the Kremlin's Weaponization Of The Economy," Johnson's Russia List, July 21, 2016, available from <http://russialist.org/hybrid-business-the-risks-in-the-kremlins-weaponization-of-the-economy-russia/>.

27. Blank, "A Clinic on Clausewitz," p. 10.
28. "Russia Closes McDonald's Restaurants for 'Sanitary Violations'," *The Guardian*, August 20, 2014.
29. M. A. Gareev, *Srazheniya na voyemio-istoricheskoy fronte (Battles on the Military-History Front)*, Moscow, Russia: ISAN Press, 2010, p. 729, cited in Ivan N. Vorobyov and Valery A. Kiselyov, "Strategies of Destruction and Attrition: A New Version," *Military Thought*, No. 1, 2014, orig. Russian, trans. to English, available from Open Source Center, Foreign Broadcast Information Service, (FBIS SOV), January 1, 2014–March 31, 2014, accessed June 2, 2014.
30. Kim Hjelmgaard, "Russian Prime Minister Says There's A New Cold War," *USA Today*, February 13, 2016.
31. Simon Shuster, "Exclusive: Russia's Prime Minister on Syria, Sanctions and a New Cold War," *Time*, February 15, 2016.
32. James Stavridis, "Avoiding the New Cold War With Russia," *Foreign Policy*, April 20, 2016.
33. Kristina Wong, "Hagel says NATO deployment could spark a new Cold War with Russia," *The Hill*, May 11, 2016.
34. Bryant Jordan, "Former SecDef: Long-Range Standoff Missile a Step to New Cold War," *Military.com*, July 14, 2016, available from <http://www.military.com/daily-news/2016/07/14/former-secdef-long-range-standoff-missile-a-step-to-new-cold-war.html>.
35. Covington, p. 11.
36. Andrew Monaghan, "The 'War' in Russia's 'Hybrid Warfare'," *Parameters*, Vol. 45, No. 4, Winter 2015-16, p. 72.
37. Phillip Karber and Joshua Thibeault, "Russia's New-Generation Warfare," Vienna, VA: Potomac Foundation, May 13, 2016.
38. Bret Perry, "How NATO Can Disrupt Russia's New Way of War," *Defense One*, March 3, 2016, available from <http://www.defenseone.com/ideas/2016/03/nato-russia-sof-ew-hybrid-war/126401/>.
39. Blank, "A Clinic on Clausewitz," p. 35.

40. Sam Gardner, "The Re-Invasion of the Baltic States: Russia's Military Threat, Strategy and Capabilities," Briefing, May 9, 2016.

41. Rick Gladstone, "Air Force General Says Russia Missile Defense 'Very Serious'," *The New York Times*, January 11, 2016, available from <https://www.nytimes.com/2016/01/12/world/europe/air-force-general-says-russia-missile-defense-very-serious.html>.

42. Ibid.; Douglas Barrie, "Russia and Anti-Access/Area Denial Capabilities," IISS Military Balance Blog, February 8, 2016.

43. Philip Breedlove, quoted in Dave Majumdar, "Can America Crush Russia's A2/AD 'Bubbles'?" *The National Interest*, June 29, 2016.

44. Lexington Institute, "Special Forces and Nuclear Weapons: The New Russian Military Threat," *Defensetalk.com*, April 24, 2014, available from <https://www.defencetalk.com/special-forces-and-nuclear-weapons-the-new-russian-military-threat-59385/>.

45. "Russia ramping up military drills to Cold War levels, NATO says," Fox News, February 5, 2016, available from <http://www.foxnews.com/world/2016/02/05/russia-ramping-up-military-drills-to-cold-war-levels-nato-says.html>.

46. Stephen J. Blank, "What Do the Zapad 2013 Exercises Reveal? (Part One)," *Eurasia Daily Monitor*, Vol. 10, No. 177, October 2014.

47. Michael R. Gordon, "Russia Has Deployed Missile Barred by Treaty, U.S. General Tells Congress," *The New York Times*, March 8, 2017, available from <https://www.nytimes.com/2017/03/08/us/politics/russia-inf-missile-treaty.html>.

48. President of the Russian Federation, *Voennaya Doktrina Rossiiskoi Federatsii (Military Doctrine of the Russian Federation)*, Moscow, Russia: The Russian Federation, 2010, Section 27, point 6, available from <http://rg.ru/2010/02/10/doktrina-dok.html>; President of the Russian Federation, *Voennaya Doktrina Rossiiskoi Federatsii (Military Doctrine of the Russian Federation)*, Moscow, Russia: The Russian Federation, 2014, Section 12, point 26, available from <https://rg.ru/2014/12/30/doktrina-dok.html>; President

of the Russian Federation, *Strategiya Natsional noi Bezopasnosti Rossiiskoi Federatsii (National Security Strategy of the Russian Federation)*, Moscow, Russia: The Russian Federation, 2015, Section 4, p. 9, points 34 and 36, available from <http://static.kremlin.ru/media/acts/files/0001201512310038.pdf>; "Russia to Activate Anti-Prompt Global Strike, Non-Nuclear Deterrence by 2020," *Sputnik International*, May 24, 2017, available from <https://sptnkne.ws/e3mQ>; Sergey Minasyan, "Russia's Conventional Deterrence: An Enhanced Tool For Both Warfighting and Political Strategy," Program on New Approaches To Research and Security in Eurasia, Policy Memo No. 466, Washington, DC: Elliott School of International Affairs, George Washington University, March 2017, available from http://www.ponarseurasia.org/sites/default/files/policy-memos-pdf/Pepm466_Minasyan_March2017.pdf; Andrei Kokoshin, *O Sisteme Neyadernogo Pred'yadernogo Sderzhivaniia v obronoi Politike Rossii (On a System of Non-Nuclear Means in the Defense for the Russian State)*, Moscow, Russia: Izdatel'stvo Moskovskogo Universiteta, 2012.

49. Will Saetren and Noah Williams, "Russia's nuclear strategy: It's a trap!" *The Hill*, April 29, 2016, available from <http://thehill.com/blogs/congress-blog/foreign-policy/277896-russias-nuclear-strategy-its-a-trap>.

50. Robert M. Scher, "Consequences and Context for Russia's Violations of the INF Treaty," Statement Before the House Committee on Armed Services, Subcommittee on Strategic Forces and Committee on Foreign Affairs Subcommittee on Terrorism, Nonproliferation, and Trade, Washington, DC, on March 31, 2017, available from <http://docs.house.gov/meetings/AS/AS29/20170330/105810/HHRG-115-AS29-Wstate-ScherR-20170330.pdf>.

51. Mark B. Schneider, "Russian Nuclear Weapons Policy," Real Clear Defense, April 28, 2017, available from http://www.realcleardefense.com/articles/2017/04/28/russian_nuclear_weapons_policy_111261.html.

52. Mark B. Schneider, "Escalate to De-escalate," *Proceedings Magazine*, Vol. 143/2/1,368, February 2017, available from <https://www.usni.org/magazines/proceedings/2017-02/escalate-de-escalate>; Blank, "'No Need to Threaten Us, We Are Frightened of Ourselves,'" p. 33.

53. Lexington Institute.

54. Ibid.

55. House of Commons Defence Committee, *Towards the next Defence and Security Review: Part Two – NATO: Third Report of Session 2014-15*, London, UK: The Stationery Office Limited by authority of the House of Commons, July 31, 2014, p. 17, available from <http://www.publications.parliament.uk/pa/cm201415/cmselect/cmdfence/358/358.pdf>.

56. Keir Giles, *Russia's 'New' Tools for Confronting the West: Continuity and Innovation in Moscow's Exercise of Power*, Research Paper, Russia and Eurasia Programme, London, UK: Chatham House, March 2016, p. 19.

57. Jacek Durkalec, "Russia's evolving nuclear strategy and what it means for Europe," Berlin, Germany: European Council on Foreign Relations, July 5, 2016, available from http://www.ecfr.eu/article/commentary_russias_evolutionary_nuclear_strategy_and_what_it_means_for_europe.

58. Lexington Institute.

59. James Rosen, "NATO chief to move forces from U.S. to Europe to respond to Russia in Ukraine," McClatchy DC Bureau, July 1, 2014, available from <http://www.mcclatchydc.com/news/nation-world/national/national-security/article24769885.html>.

60. Daniel Gouré, *NATO's Last Chance: Invest Its Scarce Resources Wisely or Accept Strategic Irrelevance*, Arlington, VA: Lexington Institute, February 2014.

61. Stanley R. Sloan, "A Successful NATO Summit? Proof Will be in the Pudding," War on the Rocks, September 10, 2014, available from <http://warontherocks.com/2014/09/a-successful-nato-summit-proof-will-be-in-the-pudding/>.

62. Christopher S. Chivvis and Stephen J. Flanagan, "NATO's Russia Problem: The Alliance's Tough Road Ahead Post-Warsaw Summit," *The National Interest*, July 13, 2016, available from <http://nationalinterest.org/blog/the-buzz/natos-russia-problem-the-alliances-tough-road-ahead-post-16952>.

63. "Warsaw Summit Communiqué: Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Warsaw 8-9 July 2016," Press Release (2016) 100, North Atlantic Treaty Organization (NATO), issued July 9, 2016, updated March 29, 2017, available from http://www.nato.int/cps/en/natohq/official_texts_133169.htm.

64. Covington, p. 14.

65. Frey.

66. Janine Davidson, "Local Capacity is the First Line of Defense against the Hybrid Threat," Washington, DC: The German Marshall Fund of the United States, September 14, 2015, available from <http://www.gmfus.org/publications/local-capacity-first-line-defense-against-hybrid-threat>.

67. Giles, *Russia's 'New' Tools for Confronting the West*.

68. Bill Gertz, "Notes from the Pentagon: House adds funds to counter Russian info war," *Inside the Ring*, April 23, 2015, available from <http://www.gertzfile.com/ring043015.html>.

69. Keir Giles, "The Next Phase of Russian Information Warfare," in Bettina Renz and Hanna Smith, *Russia and Hybrid Warfare – Going Beyond the Label*, Helsinki, Finland: Kikimora Publications, Aleksanteri Institute, University of Helsinki, January 2016.

70. Robert Legvold, "Managing the New Cold War: What Washington and Moscow Can Learn From the Last One," *Foreign Affairs*, June 16, 2014.

71. Paul Sonne, Natalie Andrews, and Anton Troianovski, "Senate Passes Bill Expanding Russia Sanctions, Limiting Trump's Say," *Fox Business*, June 15, 2017, available from <http://www.foxbusiness.com/features/2017/06/15/senate-passes-bill-expanding-russia-sanctions-limiting-trumps-say.html>.

72. "EU Could Curb Capital Markets as Part of New Russia Sanctions," *The Moscow Times*, January 29, 2015, available from <https://themoscowtimes.com/articles/eu-could-curb-capital-markets-as-part-of-new-russia-sanctions-43346>.

73. Jude Clemente, "Europe's Rise in Natural Gas Demand Means More LNG," *Forbes*, June 19, 2016, available from <https://www.forbes.com/sites/judeclemente/2016/06/19/europes-rise-in-natural-gas-demand-means-more-lng/#7704a7465d8a>.

74. Nick Cunningham, "U.S. To Undermine Russia's Gas Monopoly In Europe," Oil Price.com, April 23, 2016, available from <http://oilprice.com/Energy/Energy-General/US-To-Undermine-Russias-Gas-Monopoly-In-Europe.html>.

75. Eugene Goltz, "Russian Armed Forces: Modernization Versus Mobilization," Briefing, London, UK: Chatham House, May 20, 2016.

76. Dave Johnson, *Russia's Approach to Conflict – Implications for NATO's Deterrence and Defence*, Research Paper No. 111, Rome, Italy: NATO Defense College, April 2015.

77. Daniel Allyn, "Statement by General Daniel Allyn Vice Chief of Staff U.S. Army Before The House Armed Services Committee: State of the Military," 115th Cong., 1st sess., Washington, DC: Committee on Armed Services, February 7, 2017, p. 4, available from <http://docs.house.gov/meetings/AS/AS00/20170207/105530/HHRG-115-AS00-Wstate-AllynD-20170207.pdf>.

78. Andrew Tilghman, "Pentagon plans for more troops in Europe," *Military Times*, July 14, 2016, available from <https://www.militarytimes.com/news/your-military/2016/07/14/pentagon-plans-for-more-troops-in-europe/>.

79. Office of the Under Secretary of Defense (Comptroller), *European Reassurance Initiative: Department of Defense Budget Fiscal Year (FY) 2017*, Washington, DC: Department of Defense, February 2016, available from http://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2017/FY2017_ERI_J-Book.pdf.

80. U.S. Senate Committee on Armed Services, "Army Modernization," Committee hearing held in Washington, DC, March 22, 2017, available from <https://www.armed-services.senate.gov/hearings/17-03-22-army-modernization>.

81. Daniel Gouré, *Near-Term U.S. Army Modernization: Buying What is Available and Buying Time*, Arlington, VA: The Lexington Institute, January 2017, p. 1.

82. Robert M. Gates, U.S. Secretary of Defense, "The Security and Defense Agenda," remarks, Brussels, Belgium, June 10, 2011.

83. Philip Breedlove, "Statement of General Philip Breedlove, Commander, U.S. Forces Europe," presented to Senate Armed Services Committee, Washington, DC: Committee on Armed Services, April 30, 2015, available from http://www.armed-services.senate.gov/imo/media/doc/Breedlove_04-30-15.pdf.

84. Michael Kofman, "The Expensive Pretzel Logic of Deterring Russia by Denial," *War on the Rocks*, June 23, 2016, available from <https://warontherocks.com/2016/06/the-expensive-pretzel-logic-of-deterring-russia-by-denial/>.

85. Sydney J. Freedberg, Jr., "What the US, NATO Must Do To Counter Russia: Breedlove, Gorenc & Odierno," *Breaking Defense*, September 22, 2014, available from <https://breakingdefense.com/2014/09/how-afghanistan-iraq-prepared-nato-for-russia-breedlove-gorenc-odierno/>.

86. Karber and Thibeault, p. 5.

87. Jim Garamone, "Gorenc Discusses European Reassurance Initiative, Air Police Mission," *DoD News, Defense Media Activity*, April 5, 2016, available from <https://www.defense.gov/News/Article/Article/713722/gorenc-discusses-european-reassurance-initiative-air-police-mission/>.

88. Mike O'Brien, "NATO Chief's Warning over Lack of Military Readiness," *Institute for Defense and Government Advancement*, June 10, 2013, available from <https://www.idga.org/military-equipment-platforms/articles/nato-chief-s-warning-over-lack-of-military-readine>.

89. James R. Howe, "Future Russian Strategic Nuclear and Non-Nuclear Forces: 2022," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016.

90. Keith B. Payne, "Prepared Statement By: Dr. Keith B. Payne Department Head and Professor, Graduate Department of Defense and Strategic Studies Missouri State University," presented to The Global Nuclear Weapons Environment hearing, Washington, DC: Subcommittee on Strategic Forces, Senate Armed Services Committee, March 8, 2017, available from https://www.armed-services.senate.gov/imo/media/doc/Payne_03-08-17.pdf.

91. Andrew A. Michta, "NATO and a Resurgent Russia: Can the Alliance Adapt?" in chapter 22 of this volume.

CHAPTER 3. RUSSIA'S MILITARY INDUSTRIAL RESURGENCE: EVIDENCE AND POTENTIAL

Steven Rosefielde

ABSTRACT

This chapter makes a theoretical case and marshals empirical evidence supporting two contentious propositions: (1) Russia's contemporary economic system can support the creation and maintenance of powerful deterrent and offensive armed forces without impoverishing the nation; and, (2) changes in Kremlin military policy, Military-Industrial Commission of Russia (VPK) institutional design and managerial incentives circa 2010 have significantly enhanced the robustness of Russia's economy to exogenous shocks and perhaps augmented its sustainable long-term growth rate. Insofar as these propositions are correct, they imply that Vladimir Putin has solid grounds for believing that he can successfully: resist color revolutions and regime change in non-European Union (EU) states of the former Soviet Union; thwart democratization, EU accession, and North Atlantic Treaty Organization (NATO) expansion in the Kremlin's sphere; and, expand Moscow's influence in Europe.

INTRODUCTION

Russia annexed Crimea on March 19, 2014, in violation of Article 2(4) of the United Nations (UN) Charter,¹ the Budapest Memorandum on Security Assurances,² and the Helsinki Accords.³ It has engaged in a proxy war of attrition in Donbass (Donetsk and Luhansk oblasts) within parameters fixed by the Minsk II

process,⁴ and has successfully inserted itself into the Syrian imbroglio.⁵ These initiatives were not fortuitous; all were planned.⁶

The West insists that Crimea's annexation must be reversed,⁷ Ukraine's territorial integrity preserved, and Russia's waywardness tamed. Washington and Brussels have backed up their demands by chiding Moscow, imposing economic and diplomatic sanctions, and strengthening defense forces in Europe.⁸ However, the West has also sent mixed signals by agreeing to partner with Putin in Syria, inviting him for formal talks with NATO,⁹ and more broadly taking the attitude that Russia's intrinsic weaknesses eventually will compel the Kremlin to repent.¹⁰

If Western shaming, sanctions, and modest increases in defense spending do not immediately chasten the Kremlin, should American and EU leaders still expect to prevail because Russia's weaknesses ultimately will thwart Putin's ambitions? Specifically, do deficiencies in the Federation's VPK mean that Putin's Russia must inevitably acquiesce to color revolutions and regime change in states of the former Soviet Union? Is it futile for Moscow to oppose democratization, EU accession, and NATO expansion on its turf? Are there compelling economic grounds for believing that Russia's VPK cannot provide Putin with the arsenal he requires to hold the line and expand the Kremlin's sphere of influence in Europe?¹¹

The short answer to all these rhetorical questions is NO! The subject of Russia's military industrial performance and potential is slippery and requires painstaking documentation and economic analysis. This chapter attempts to fill the vacuum.

BASELINE

We know with certainty that the Soviet Union's VPK was potent enough to allow the Union of Soviet Socialist Republics (USSR) to become a military superpower, and that weapons production collapsed in post-Soviet Russia even though VPK institutions until recently were preserved intact.¹² Russian military industrial production potential today is co-determined by the achieved Soviet level, post-Soviet institutional and policy changes, and Russia's new economic system. Russia's arsenal is smaller than it was under communism and is comparatively obsolete, but both deficiencies are being remedied under Putin's administration.¹³ An authoritative inventory of Russia's military industrial accomplishments (budgetary expenditures and weapons procurement) compiled by Julian Cooper for the Swedish Defense Research Agency (FOI) serves as a baseline for judging Russia's military modernization from 2010 through 2015.¹⁴

ARMAMENT PROGRAM FOR RUSSIA FOR THE YEARS 2011 TO 2020

Putin's goal of restoring Russia's great power—reflected in Crimea's annexation—depends critically on the past success of the VPK's military industrial research and development (R&D) 2002-2010 initiative achieved under The Reform and Development of the Defense Industrial Complex Program 2002-2006, signed by then-Prime Minister Mikhail Kasyanov in October 2001,¹⁵ and the State Armament Programme for Russia for the years 2011 to 2020, signed by then-President Dmitry Medvedev at the end of 2010.

Cooper summarizes the program and its accomplishment through 2015 as follows:

This was a highly ambitious document setting out plans for the procurement of weapons and other military equipment, plus research and development for the creation of new systems, to a total value of over 20 trillion roubles, or US\$680 billion at the exchange rate of the day. The aim of the programme was to increase the share of modern armaments held by the armed forces from 15 per cent in 2010 to 30 per cent in 2015 and 70 per cent in 2020. The programme has been implemented through the budget-funded annual state defence order supplemented by state guaranteed credits. By 2014, the military output of the defence industry was growing at an annual rate of over 20 percent, compared with 6 percent three years earlier. The volume of new weapons procured steadily increased, the rate of renewal being particularly strong in the strategic missile forces and the air force, but not as impressive in the navy and ground forces. In 2014, the work of the defence industry began to be affected by the Ukraine crisis, with a breakdown of military-related deliveries from Ukraine and the imposition of sanctions by NATO and European Union member countries. The performance of the economy began to deteriorate, putting pressure on state finances. It was decided to postpone for three years the approval of the successor state armament programme, 2016–2025. Nevertheless, the implementation of the programme to date has secured a meaningful modernisation of the hardware of the Russian armed forces for the first time since the final years of the USSR.¹⁶

Insofar as Cooper is correct,¹⁷ despite the adverse consequences of the global financial crisis of 2008, Russia has not only succeeded in augmenting the size of its arsenal but has also significantly modernized its armed forces.¹⁸ The quantitative improvement may be partly attributable to restarting existing weapon production lines with negligible systemic implications

(economic recovery), but modernization is another story. It demonstrates that Russia's post-communist economy, like its Soviet predecessor, is capable of manufacturing large quantities of technologically improved weapons systems.

SOURCES OF QUANTITATIVE GROWTH AND MODERNIZATION

Quantitative weapons growth and modernization depend on engineering prowess and economic efficiency. Engineers design weapons and the factories needed to produce them. Russian military specifications like their counterparts in the West are determined by military professionals, not private consumer preferences. The volumes of weapons produced, given prevailing technologies, depend formally on each good's production function, factor supplies, and allocative efficiency.¹⁹ Output can be increased by building additional factories, employing more variable capital and labor, allocating factors to better use, and improving technology,²⁰ even if factor and product prices in multiproduct firms are not generally competitive.²¹ As in the West, optimization (maximal efficiency) cannot be fully achieved if prices are distorted by anti-competitive influences. This means that the Kremlin can increase weapons production from the achieved level to the extent that Putin desires within conventional "bounded rationality constraints,"²² and in accordance with his willingness to divert resources from the civilian sector to military production. More can be achieved by improving production technologies and "second worst" allocative efficiency.²³ The claim that Russia's economy cannot support the creation and maintenance of formidable armed forces is fundamentally

misguided on engineering and microeconomic grounds, an assertion confirmed by the Soviet experience. The same argument holds for improved weapons design, the development of new weapons systems, and the modernization of productive capacities. As history demonstrates, the Kremlin has the ability to continuously enhance the technological proficiency of its weapons and modernize its armament production facilities, including its inter-industrial, material supply networks. There are two highly classified programs (*federalnye tselevye programmy* [Federal Target Programs or FTsP]) in place today that were approved by President Dmitry Medvedev on December 31, 2010, that facilitate the implementation of the Russian state armament program (outlined in the 2011–2020 *gosudarstvennaia programma vooruzhenii* [State Armaments Program]) by funding: 1) the modernization of the industrial base of the defense sector (FTsP Development of the defense-industrial complex, 2011–2020); and, 2) inter-industrial supply (FTsP Development, restoration, and organization of the production of or importing substitute, scarce materials and small-scale chemicals for armaments, military, and special technology from 2009-2015).²⁴

Endogenous Economic Growth

Vitaly Shlykov (former co-chair of Russia's Defense Council) coined the term structural militarization to suggest that excessive defense spending is an institutionalized aspect of the Soviet and Russian economic system.²⁵ Insofar as his assessment remains valid, the Kremlin may be predisposed to investing inordinately large sums in VPK R&D that could augment the sustainable rate of Russia's armament and aggregate

economic growth. This possibility is a form of the more general phenomenon of endogenous economic growth some Western macroeconomists contend can be achieved through government programs and policies.²⁶ The endogenous component of economic growth is difficult to econometrically separate from other contributing factors; nonetheless, it is worth bearing in mind that gargantuan VPK investments in military industrial R&D could positively affect Russia's sustainable rate of weapons growth, with additional spillovers to aggregate gross domestic product (GDP) growth. Putin contends that the revival of Russia's defense industry is essential to the nation's economic revival.²⁷ A result of this sort is not predestined, but is conceivable from an engineering and microeconomic perspective.

Growth and Systems

Political commentators frequently presume that the tsarist and Soviet economies were condemned to perpetual economic backwardness by their authoritarianism, and that Russia's contemporary mixed economy cannot fare any better. While there are solid theoretical grounds for the surmise,²⁸ statistical and econometric support for the proposition are inconclusive.²⁹ On one hand, Russia has failed to catch up with and overtake Western living standards during the last 100 years.³⁰ On the other hand, Central Intelligence Agency (CIA) data indicate that the postwar Soviet economy grew faster than America's economy until the mid-1980s, even after taking account of hidden inflation.³¹ Russian growth in the new millennium has outperformed the West's growth too, just as it should have done *ceteris paribus*, given its relative economic backwardness.³²

On balance, the historical record does not support the often-voiced claim that inferior long-term GDP growth prospects pose a significant barrier to sustained Kremlin military competition with the West. Moscow's economy was inferior during the Soviet period when Russia was an impoverished superpower judged from the perspective of consumer sovereignty, but this did not prevent the Kremlin from achieving military superpower status.

IMPOVERISHED SUPERPOWER

It is possible to counter-argue that the Soviet superpower was a Pyrrhic victory for authoritarianism, because it pauperized the nation and sparked the USSR's dissolution. However, the evidence again is mixed. Henry Rowan and Charles Wolf, Jr., famously described the Soviet Union as an impoverished superpower,³³ but Gertrude Schroeder (Greenslade) and Imogene Edwards insisted that Soviet consumer goods were growing rapidly throughout the postwar era.³⁴ The dispute turns on plausible but elusive claims about hidden inflation that are no longer germane.³⁵ Russia under Putin's watch is not a comprehensively controlled economic regime.³⁶ It has become a mixed economy combining elements of administrative command planning, rent-granting, and workably competitive markets.³⁷ Citizens may grumble at the hardships inflicted by collapsed natural resource prices and endemic corruption,³⁸ but the quantity and quality of consumer goods available in Russia today far surpass Soviet benchmarks.³⁹ Living standards for Russia's large middle class are comparable to those in high-end "middle income developing nations,"⁴⁰ and barring fundamental systemic changes or catastrophic exogenous shocks, should continuously improve. Russia

can enjoy both guns and butter without falling militarily behind the West, given prevailing and foreseeable levels of NATO defense spending.⁴¹

VPK POLICY AND INSTITUTIONAL AND INCENTIVE REFORM

The performance and potentials of Russia's military industrial system and economy took a quantum leap after the 2008 global financial crisis. These changes were planned as early as 2002, but materialized a few years later than originally envisioned in the Reform and Development of the Defense Industrial Complex Program 2002-2006. Military spending in Kasyanov's document focused on designing and developing fifth generation weapons, rather than augmenting inventories of standard equipment. Military R&D temporarily took pride of place over procurement until new technologies came on stream and manufacturing facilities were installed for the mass production of advanced armaments. During this period and a few years beyond, it seemed as if the directors of the VPK and enterprise managers were content to throw money down a R&D black hole.⁴² There was no credible evidence of success, while reports indicated that key officials managed to live comfortably by diverting funds to personal use while feigning bold R&D ventures. The Russian defense budgetary and weapons procurement data compiled by Cooper,⁴³ and confirmed by multiple sources reveal that the VPK has moved beyond the R&D phase of its military restoration project to rapid rearmament.⁴⁴ He contends, "a meaningful modernization of the hardware of the Russian armed forces occurred 2010-2015 for the first time since the final

years of the USSR, driven by the rapid procurement of new advanced weapons."⁴⁵

This means not only that Putin has adhered to the policy laid out in the Reform and Development of the Defense Industrial Complex Program 2002-2006, albeit with a delay but, also, companion institutional and incentive reforms required for success were implemented, especially during the FTsP Development of the defense-industrial complex, 2011-2020 program. The surge in Russian weapons cannot be explained by revving up idled production lines for fourth generation equipment. The surge reflects the modernization of weapon characteristics; the updating of old production lines; the building of new, modern production facilities; and, the elimination of rewarding executives for mass production, rather than military R&D.

The literature on these subjects provides a clear, if incomplete, picture of what has transpired. First, after Yeltsin's experiment with privatization, the VPK and closely associated "strategic enterprises" like Transneft, Gazprom, Rosneftegaz, and Alrosa were re-nationalized in 2004. Initially, state ownership included some private shareholding participation, but now 100 percent state proprietorship is more frequently the norm.⁴⁶ However, unlike Soviet arrangements, state ownership does not bar VPK enterprises or public private partnerships (PPP) from competing among each other.⁴⁷ Military industrial firms (including holding companies) are permitted to operate on a for-profit basis. They compete for state orders and export sales (contracts) and can outsource. Shareholders and managers are variously incentivized to profit-seek and incompletely profit-maximize, rather than comply with Ministry of Defense (MoD) commands or rent-seeking. They have fewer degrees of freedom than

private Western defense corporations like Boeing has, but are self-motivated to produce efficiently in accordance with Herbert Simon's bounded rationality framework and William Baumol's satisficing concept.⁴⁸ This bolstered VPK initiative when the MoD stopped prioritizing military R&D. Weapon producers could pretend to increase output, continue rent-seeking, and live passively off state funds. This may well have been the outcome but, judging from Cooper's evidence, Putin beat the odds by imposing firm discipline and containing rent-seeking, buttressed with competitive reforms and sufficient material incentives. No one denies that kleptocratic rent-seeking persists, nor its latent threat to Russia's military industrial revival. The system could relapse into indolence when Putin retires, but it now needs to be recognized that sustainable Russian military modernization is also a distinct possibility.

CONCLUSION

After a quarter century meandering through the wilderness of post-Soviet "transition," Russia appears to have successfully devised a sustainable authoritarian mixed economy that preserves Kremlin superpower without severely harming consumer well-being. The new model is inclusive. The *siloviki* (politicians from security services) receive their toys. Oligarchs, klepocrats, and other servitors are granted generous unearned incomes and privileges. The *narod* (common people) have enhanced job security, above-subsistence earnings, the prospect of gradually rising living standards, some civil liberties, and great power national pride.

The new system is more shock resistant than its civilian-oriented predecessor, judging from the 2008 global financial crisis benchmark. Plummeting petroleum prices from 2014 to 2016 depressed GDP only 3.7 percent in 2015 compared with an 8 percent decline in 2009.⁴⁹ Russia is weathering the storms of plunging natural resources prices and EU economic stagnation better than Anders Aslund predicted,⁵⁰ and appears on both defense and civilian grounds to provide ample support for Putin's belief that he can successfully: resist color revolutions and regime change in non-EU states of the former Soviet Union; thwart democratization, EU accession, and NATO expansion on the Kremlin's turf; and, expand Moscow's influence in Europe.

ENDNOTES - CHAPTER 3

1. Robin Geiss, "Russia's Annexation of Crimea: The Mills of International Law Grind Slowly but They Do Grind," *International Law Studies*, Vol. 91, Iss. 1, 2015, pp. 226-249, available from <http://digital-commons.usnwc.edu/ils/vol91/iss1/12/>.

2. "Budapest Memorandum on Security Assurances, 1994," Council on Foreign Relations, December 5, 1994.

1. The Russian Federation, the United Kingdom of Great Britain and Northern Ireland, and the United States of America reaffirm their commitment to Ukraine, in accordance with the principles of the Final Act of the Conference on Security and Cooperation in Europe, to respect the independence and sovereignty and the existing borders of Ukraine.

3. "The Final Act of the Conference on Security and Cooperation in Europe, Aug. 1, 1975, 14 I.L.M. 1292 (Helsinki Declaration)," held in Helsinki, Finland, August 1, 1975, archived copy with University of Minnesota Human Rights Library, available from <http://www1.umn.edu/humanrts/osce/basics/finact75.htm>.

*I. Sovereign equality, respect for the rights inherent in sovereignty.
... II. Refraining from the threat or use of force. ... III. Inviolability*

of frontiers. . . IV. Territorial integrity of States [italics in original].

4. "Full Text of the Minsk-II Agreement on Ukraine," Transcend Media Service, February 16, 2015, available from <https://www.transcend.org/tms/2015/02/full-text-of-the-minsk-ii-agreement-on-ukraine/>.

Immediate and full ceasefire in particular districts of Donetsk and Luhansk Oblasts of Ukraine and its strict fulfilment as of 00.00 midnight (Kiev time) on Feb. 15, 2015.

Pull-out of all heavy weapons by both sides to equal distance with the aim of creation of a security zone on minimum 50 kilometres (km) apart for artillery of 100mm calibre or more, and a security zone of 70km for MLRS [multiple launch rocket systems] and 140 kilometres for MLRS Tornado-S, Uragan, Smerch and tactical missile systems Tochka U.

- for Ukrainian troops, from actual line of contact;

- for armed formations of particular districts of Donetsk and Luhansk Oblasts of Ukraine, from the contact line in accordance with the Minsk memorandum as of Sep. 19, 2014.

The pullout of the abovementioned heavy weapons has to start no later than the second day after the ceasefire and finish within 14 days.

This process will be assisted by OSCE with the support of the Trilateral Contact Group.

Effective monitoring and verification of ceasefire regime and pullout of heavy weapons by OSCE will be provided from the first day of pullout, using all necessary technical means such as satellites, drones, radio-location systems etc.

On the first day after the pullout a dialogue is to start on modalities of conducting local elections in accordance with the Ukrainian legislation and the Law of Ukraine 'On temporary Order of Local Self-Governance in Particular Districts of Donetsk and Luhansk Oblasts,' and also about the future of these districts based on the above mentioned law.

Without delays, but no later than 30 days from the date of signing of this document, a resolution has to be approved by the Verkhovna Rada of Ukraine, indicating the territory which falls under the special regime in accordance with the law 'On temporary Order of Local Self-Governance in Particular Districts of Donetsk and Luhansk Oblasts,' based in the line set up by the Minsk Memorandum as of Sept. 19, 2014.

Provide pardon and amnesty by way of enacting a law that forbids persecution and punishment of persons in relation to events that took place in particular departments of Donetsk and Luhansk Oblasts of Ukraine.

Provide release and exchange of all hostages and illegally held persons, based on the principle of 'all for all'. This process has to end—at the latest—on the fifth day after the pullout (of weapons).

Provide safe access, delivery, storage and distribution of humanitarian aid to the needy, based on an international mechanism.

Define the modalities of a full restoration of social and economic connections, including social transfers, such as payments of pensions and other payments (income and revenue, timely payment of communal bills, restoration of tax payments within the framework of Ukrainian legal field).

With this aim, Ukraine will restore management over the segment of its banking system in the districts affected by the conflict, and possibly, an international mechanism will be established to ease such transactions.

Restore full control over the state border by Ukrainian government in the whole conflict zone, which has to start on the first day after the local election and end after the full political regulation (local elections in particular districts of Donetsk and Luhansk Oblasts based on the law of Ukraine and Constitutional reform) by the end of 2015, on the condition of fulfilment of Point 11—in consultations and in agreement with representatives of particular districts of Donetsk and Luhansk Oblasts within the framework of the Trilateral Contact Group.

Pullout of all foreign armed formations, military equipment, and also mercenaries from the territory of Ukraine under OSCE supervision. Disarmament of all illegal groups.

Constitutional reform in Ukraine, with the new Constitution to come into effect by the end of 2015, the key element of which is decentralisation (taking into account peculiarities of particular districts of Donetsk and Luhansk Oblasts, agreed with representatives of these districts), and also approval of permanent legislation on special status of particular districts of Donetsk and Luhansk Oblasts in accordance with the measures spelt out in the footnotes, by the end of 2015.

5. Steven Rosefielde, *Kremlin Strikes Back: Russia and the West after Crimea's Annexation*, Cambridge, MA: Cambridge University Press, 2016; Stephen Blank, "Russia's Cease-Fire Fiction: The Obama administration has once again failed to understand Putin's game," U.S. News & World Report, April 5, 2016, available from <https://www.usnews.com/opinion/blogs/world-report/articles/2016-04-05/obamas-shouldnt-buy-russias-syria-cease-fire-fiction>.

World leaders have hailed the agreement as a substantive breakthrough to the Syrian impasse. But the reality is very different; the text of the agreement permits Russia to continue bombing raids against a broad range of allegedly terrorist targets, effectively giving the Kremlin carte blanche to continue its military operations directed against all manner of opposition to long-time ally Bashar Assad. In this way, Russia can continue to shape outcomes in Syria, and do so with virtual impunity.

6. Stephen Blank, Keith Payne, Harrison Menke, Mark Schneider, Thomas Scheber, and David Trachtenberg, *Russian Strategy: Expansion, Crisis, and Conflict*, Fairfax, VA: National Institute for Public Policy, 2016.

7. "Germany's goal: Restoring Russia-annexed Crimea to Ukraine," Associated Press, March 16, 2015.

8. "Readiness Action Plan," North Atlantic Treaty Organization, last updated September 21, 2017, available from https://www.nato.int/cps/en/natohq/topics_119353.htm?selectedLocale=en. See also Robin Emmott, "Armed with new U.S. money, NATO

to strengthen Russia deterrence,” Reuters, February 5, 2016, available from <http://www.reuters.com/article/us-nato-russia-idUSKCN0VE1QA>, accessed June 26, 2018:

Backed by an increase in U.S. military spending, NATO is planning its biggest build-up in eastern Europe since the Cold War to deter Russia but will reject Polish demands for permanent bases.

9. Bryan McManus, Agence France-Presse, “NATO to hold first formal talks with Russia since 2014,” Yahoo News, April 8, 2016, available from <https://www.yahoo.com/news/nato-hold-first-council-meeting-russia-since-2014-005648393.html>.

10. Rosefielde, *Kremlin Strikes Back*.

11. Bryan Bender, “The Secret U.S. Army Study That Targets Moscow,” *Politico*, April 14, 2016, available from <http://www.politico.com/magazine/story/2016/04/moscow-pentagon-us-secret-study-213811>. See the following quote:

Lighter armored vehicles like those the Army relied on . . . in Iraq and Afghanistan are . . . vulnerable to [Russia’s] new weapons. And main battle tanks like Russia’s T-90—thought to be an anachronism in recent conflicts—are still decisive.

Also see Lieutenant General H. R. McMaster speaking to the Senate Armed Services committee quoted in the article:

Russia possesses a variety of rocket, missile and cannon artillery systems that outrange and are more lethal than U.S. Army artillery systems and munitions.

12. Steven Rosefielde, *Russia in the 21st Century: The Prodigal Superpower*, Cambridge, MA: Cambridge University Press, 2005; Steven Rosefielde, *False Science: Underestimating the Soviet Arms Buildup*, Exp. 2d Ed., Piscataway, NJ: Transaction, 1982 (1987).

13. The Kremlin’s arms buildup has multiple purposes, including the achievement of battlefield escalation dominance with conventional and nuclear ordnance up to the strategic nuclear threshold: “a global reconnaissance/strike capability to wage intercontinental conventional war against the United States and its allies and other adversaries in support of Russian national

interests." See James Howe, "Future Russian Strategic Nuclear and Non-Nuclear Forces: 2022" in chapter 10 of this volume. See also James Howe, "Future Russian Strategic Nuclear and Non-Nuclear Forces: 2022," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016; Dmitry Dima Adamsky, "The Current State of Russian Strategic Thought in the Nuclear Realm," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016; Mark B. Schneider, "Russian Nuclear Weapons Policy and Programs, the European Security Crisis, and the Threat to NATO," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016.

14. Julian Cooper, *Russia's state armament programme to 2020: a quantitative assessment of implementation 2011-2015*, Report No. FOI-R--4239—SE, Stockholm, Sweden: Swedish Defense Research Agency, March 2016, tables 1-21, pp. 17-23, 25-29, 31, 57, 61, 67-68, 80-81, 91-92, 102-104, available from https://www.researchgate.net/publication/299338379_Russia's_state_armament_programme_to_2020_a_quantitative_assessment_of_implementation_2011-2015_FOI_Report. From the preface of this report, p. 5:

This report provides an overview of the implementation of the Russian state armament programme to 2020 as the end of its first 5 years approaches. It is an empirical study designed to present data that is not readily accessible to analysts.

15. The author possesses a signed copy of the unpublished program summary. The document reveals that the Kremlin intended to shift more toward reconsolidation of state authority, driven in part by the aging of Russia's defense-industrial complex's capital stock, underemployment, low pay, and poor enterprise finances. Compare to Vitaly Shlykov, "Russian Defence Industrial Complex after 9-11," paper presented to the Russian Security Policy and the War on Terrorism conference, Monterey, CA: U.S. Naval Postgraduate School, June 4-5, 2002. For a discussion of earlier reforms, see Alexei Izyumov, Leonid Kosals, and Rosalina Ryvkina, "Privatisation of the Russian Defence Industry: Ownership and Control Issues," *Post-Communist Economies*, Vol. 12, No. 4, 2000, pp. 485-496; Alexei Izyumov, Leonid Kosals, and Rosalina Ryvkina, "Defence Industry Transformation in Russia:

Evidence from a Longitudinal Survey,” *Post-Communist Economies*, Vol. 12, No. 2, 2000, pp. 215-227.

16. Cooper, p. 4.

17. Rosefielde, *Kremlin Strikes Back*; Michael Ellman, “Russia’s Current Economic System: From Delusion to Glasnost,” *Comparative Economic Studies*, Vol. 57, Iss. 4, December 2015, pp. 693-710. Compare to Gustav Gressel, “Russia’s Quiet Military Revolution, and What it Means for Europe,” *Policy Brief*, London, UK: European Council on Foreign Relations, October 2015, available from <http://www.css.ethz.ch/content/specialinterest/gess/cis/center-for-securities-studies/en/services/digital-library/publications/publication.html/194272>, and his following quote:

The West has underestimated the significance of Russia’s military reforms. Western—especially US—analysts have exclusively focused on the third phase of reform: the phasing in of new equipment. Numerous Russian and Western articles have stated that the Russian armed forces were still using legacy equipment from the Soviet Union and that its replacement was occurring more slowly than planned by the Kremlin. However, this is a misunderstanding of the nature of the reforms. The initial stages were not designed to create a new army in terms of equipment, but to ensure that existing equipment was ready to use, and to make the organisation that uses it more effective and professional. Indeed, to successfully intervene in Russia’s neighbourhood, Moscow does not necessarily need the latest cutting-edge defence technology. Rather, such interventions would have to be precisely targeted and quickly executed to pre-empt a proper Western reaction.

18. Bender:

[Lieutenant General H. R.] McMaster told the Senate Armed Services Committee last week . . . [that] ‘in Ukraine, the combination of unmanned aerial systems and offensive cyber and advanced electronic warfare capabilities depict a high degree of technological sophistication.’

19. Steven Rosefielde and Ralph W. Pfouts, *Inclusive Economic Theory*, Singapore: World Scientific Publishers, 2013. Mathematical and geometric proofs are provided in this volume.

20. Robert Solow, "A Contribution to the Theory of Economic Growth," *The Quarterly Journal of Economics*, Vol. 70, February 1956, pp. 65-94; Robert Solow, "Technical Change and the Aggregate Production Function," *Review of Economics and Statistics*, Vol. 39, No. 3, August 1957, pp. 312-320; T. W. Swan, "Economic Growth and Capital Accumulation," *Economic Record*, Vol. 32, Iss. 2, November 1956, pp. 334-361.

21. Steven Rosefielde, *Russian Economy: From Lenin to Putin*, Malden, MA: Blackwell Publishing, 2007.

22. Igor Birman, "From the Achieved Level," *Soviet Studies*, Vol. 30, No. 2, April 1978, pp. 153-172; Herbert A. Simon, "Bounded Rationality and Organizational Learning," *Organization Science*, Vol. 2, No. 1, February 1991, pp. 125-134; Reinhard Selten, "What is Bounded Rationality?" in Gerd Gigerenzer and Reinhard Selten, eds., *Bounded Rationality The Adaptive Toolbox*, Cambridge, MA: MIT Press, 2002; Herbert A. Simon, *Models of Bounded Rationality, Volume 1: Economic Analysis and Public Policy*, Cambridge, MA: MIT Press, 1982.

23. The term "second worst" emphasizes the magnitude of observable deviations from optimality. It is a word play on the more familiar term "second best." There is a tendency to downplay the consequences of Western anti-competitiveness in the neoclassical economic theory literature by describing suboptimal outcomes as "second best." Second worst cautions scholars that the Western economic performance is typically substantially inferior to the ideal. Steven Rosefielde, "Economic Theory of the «Second Worst»," *HSE Economic Journal*, Vol. 19, No. 1, Moscow, 2015, pp. 30-44; compare to Richard Lipsey and Kelvin Lancaster, "The General Theory of Second Best," *The Review of Economic Studies*, Vol. 24, No. 1, 1956, pp. 11-32. The term was first coined by James Meade, *The Theory of International Economic Policy: Trade and Welfare, Volume 2*, London, UK: Oxford University Press, 1955.

24. Cooper.

It is a highly classified document in twelve sections. Ten are devoted to particular services of the [MoD]—ground forces, navy, air force, etc.—one to all other forces and one (the tenth) to R&D relating to the development of armaments—fundamental, exploratory and applied. . . . Total funding is usually given as 20.7 trillion roubles.

25. Vitaly Shlykov, "Chto Pogubilo Sovetskii Soiuz? Amerikanskaia Razvedka ili Sovetskikh Voennykh Raskhodakh" ("What Destroyed the Soviet Union? American Intelligence Estimates of Soviet Military Expenditures"), *Voenny Vestnik*, No. 8, 2001; Shlykov, "Russian Defence Industrial Complex after 9-11"; Vitaly Shlykov, "Globalizatsiia voennoi promyshlennosti-imperativ XXI veka" ("Globalization of Military Industry: The 21st Century Imperative"), *Otechestvennye zapiski*, No. 5, 2005, pp. 98-115; Vitaly Shlykov, "Nazad v budushchee, ili Ekonomicheskyye uroki kholodnoi voiny" ("Back to the Future, or Economic Lessons of the Cold War"), *Rossia v Global'noe Politike*, Vol. 4, No. 2, 2006, pp. 26-40; Vitaly Shlykov "Nevidimaia Mobilizatsii" ("Invisible Mobilization"), *Forbes*, No. 3, March 2006, pp. 1-5; Vitaly Shlykov, "The Military Reform and Its Implications for the Modernization of the Russian Armed Forces," in Jan Leijonhielm and Fredrik Westerlund, eds., *Russian Power Structures*, Stockholm, Sweden: Swedish Defense Research Agency, January 2008, pp. 50-60.

26. Peter Howitt, "Endogenous Growth and Cross-Country Income Differences," *American Economic Review*, Vol. 90, September 2000, pp. 829-846; Peter Howitt, and Philippe Aghion, "Capital Accumulation and Innovation as Complementary Factors in Long-Run Growth," *Journal of Economic Growth*, Vol. 3, June 1998, pp. 111-130; Paul M. Romer, "Endogenous Technological Change," *Journal of Political Economy*, Vol. 98, October 1990, pp. S71-S102; Robert Lucas, "On the Mechanics of Economic Development," *Journal of Monetary Economics*, Vol. 22, January 1988, pp. 3-42.

27. "Putin Speaks for Investment in Defense," *Sputnik News*, February 20, 2012, available from http://en.rian.ru/military_news/20120220/171406103.html, accessed April 5, 2013.

28. Steven Rosefielde, "Russian Military, Political and Economic Reform: Can the Kremlin Placate Washington?" paper presented to the Conference on Russian Military Power, Carlisle, PA: U.S. Army War College, May 14-15, 2014; Steven Rosefielde, "The Impossibility of Russian Economic Reform: Waiting for Godot," in Stephen J. Blank, ed., *Can Russia Reform? Economic, Political, and Military Perspectives*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, 2012; Steven Rosefielde, "Russia's Aborted Transition: 7000 Days and Counting," *Institutional'naya*

ekonomika razvitie, New York: Cambridge University Press, 2010; Steven Rosefielde, "Postcrisis Russia: Counting on Miracles in Uncertain Times," in Carolina Vendil Pallin and Bertil Nygren, eds., *Russian Defense Prospects*, New York: Routledge, 2012, pp. 134-150; Steven Rosefielde and Stefan Hedlund, *Russia Since 1980: Wrestling With Westernization*, Cambridge, UK: Cambridge University Press, 2008. The Muscovite rent-granting aspect of Russia's contemporary mixed economic system seriously degrades its efficiency and, if unchecked, would prevent the Kremlin from assembling a credible military defense. Compare to Karen Dawisha, *Putin's Kleptocracy: Who Owns Russia?* New York: Simon and Schuster, 2014.

29. Angus Maddison, *The World Economy: A Millennial Perspective*, Paris, France: Development Centre Studies, Organisation for Economic Cooperation and Development, 2001; Rosefielde, *Kremlin Strikes Back*.

30. Maddison.

31. "Measures of Soviet Gross National Product in 1982 Prices," Joint Economic Committee of Congress, Washington, DC, November 1990.

32. Moses Abramovitz, "Catching Up, Forging Ahead, and Falling Behind," *The Journal of Economic History: The Tasks of Economic History*, Vol. 46, No. 2, June 1986, pp. 385-406.

33. Henry Rowen and Charles Wolf, Jr., eds., *The Impoverished Superpower: Perestroika and the Soviet Military Burden*, San Francisco, CA: Institute for Contemporary Studies, 1990.

34. Gertrude Schroeder and Imogene Edwards, *Consumption in the USSR: An International Comparison*, Washington, DC: Joint Economic Committee of Congress, 1981, table 14, p. 25. Schroeder's husband, Rush Greenslade, was the director of the Central Intelligence Agency's (CIA's) Office of Soviet Analysis.

35. Grigorii Khanin, "Ekonomicheskii Rost: Alternativnaia Otsenka" ("Economic Growth: Alternative Assessments"), *Kommunist*, Vol. 17, 1988, pp. 83-90; Steven Rosefielde, "A Comment on David Howard's Estimate of Hidden Inflation in the Soviet Retail Sales Sector," *Soviet Studies*, Vol XXXII, No. 3, July 1980,

pp. 423-427; Steven Rosefielde, "The Illusion of Material Progress: The Analytics of Soviet Economic Growth Revisited," *Soviet Studies*, Vol. 43, No. 4, 1991, pp. 597-611.

36. Ellman, pp. 693-710.

37. Rosefielde, *Kremlin Strikes Back*; John Maurice Clark, "Toward a Concept of Workable Competition," *The American Economic Review*, Vol. 30, No. 2, June 1940, pp. 241-256; John Maurice Clark, *Competition as a Dynamic Process*, Washington, DC: The Brookings Institution, 1961.

38. *Consumer Lifestyles in Russia*, London, UK: Euromonitor International, July 2017, available from <http://www.euromonitor.com/consumer-lifestyles-in-russia/report>.

The recent economic downturn dampened consumer confidence and household spending declined by 10% between 2014 and 2015. The impact of the recession on consumers has been exacerbated by recent sanctions which have driven food prices higher and resulted in many coveted imported items no longer being stocked on store shelves.

39. Macroeconomics and Fiscal Management Global Practice Team, *The World Bank in the Russian Federation: Russia Economic Report: The Dawn of a New Economic Era?* No. 33, Moscow, Russia: World Bank Group, April 2015, pp. iv, 30-31, available from <https://www.worldbank.org/content/dam/Worldbank/document/eca/russia/rer33-eng.pdf>.

The past decade witnessed a dramatic drop in poverty as large numbers of Russians were able to enter the middle class. Poverty plunged from about 40 percent of the population in 2001 to about 10 percent in 2010, and in 10 years the middleclass doubled from 30 percent of the total population to over 60 percent. . . . **Russia became a middle-income society where growth was driven by consumer demand.** By 2010, the middle class controlled 74 percent of total household income and 86 percent of total household consumption. When it came to private consumption, in fact, the middle class became the only game in town. Positive and sustained economic growth for most of the period translated into notable growth in per capita consumption from US\$9/day in 2001 to almost US\$17/day in 2010 (2005

PPP). There was a significant decline in poverty, and to a lesser extent vulnerability. **Upward economic mobility was the result of both increases in average incomes and changes in the distribution of income.** Using an established decomposition technique (Datt and Ravallion, 1992) to examine the impact on economic mobility of changes in the distribution of household per capita income between 2001 and 2010, particularly the emergence of the middle class, it was found that over three-fourths of the observed decline in poverty could be explained by changes in average income; the remaining fourth was explained by changes in the distribution of income [emphasis in original].

40. Macroeconomics and Fiscal Management Global Practice Team, pp. iv, 31. Like in the West, many of Russia's highly educated youth have difficulty finding positions commensurate with their qualifications. This is a serious waste, but does not negate the net progress Russia has made in raising living standards.

41. Rosefield, *Kremlin Strikes Back*.

42. Steven Rosefield, "Russian Rearmament: Motives, Options and Prospects," in Jan Leijonhielm and Fredrik Westerland, eds., *Russian Power Structures – Present and Future Roles in Russian Politics*, FOI-R--2437--SE, Stockholm, Sweden: Swedish Defense Research Agency, December 2007, pp. 71-96.

43. Cooper.

44. Rosefield, *Kremlin Strikes Back*.

45. Cooper.

46. Carsten Sprenger, "State-Owned Enterprises in Russia: Presentation at the OECD Roundtable on Corporate Governance of SOEs," Moscow, Russia, October 27, 2008, available from <https://www.oecd.org/corporate/ca/corporategovernanceprinciples/42576825.pdf>.

47. Yiyi Liu and Steven Rosefield, "Public Private Partnerships: Antidote for Secular Stagnation?" in Steven Rosefield, Masaaki Kuboniwa, Satoshi Mizobata, and Kumiko Haba, eds., *EU Economic Stagnation and Political Strife: Lessons for Asia*, Singapore: World Scientific Publishers, 2016.

48. William Baumol, *Business Behavior, Value and Growth*, Rev. Ed., New York: Macmillan, 1959.

49. Rosefielde, *Kremlin Strikes Back*.

50. Anders Aslund, "Russia's Output Will Slump Sharply in 2015," *The American Interest*, January 15, 2015, available from <http://www.the-american-interest.com/2015/01/15/russias-output-will-slump-sharply-in-2015/>. Aslund forecast a 10-percent plunge in Russia's gross domestic product (GDP) for 2015. The current judgment was a 3.7-percent decline.

CHAPTER 4. RUSSIAN SCIENCE AND TECHNOLOGY: CURRENT STATE AND IMPLICATIONS FOR DEFENSE

Paul Schwartz

Under the current State Armament Program for the period 2011-2020 (GPV 2020), Russia has embarked on a major program of military rearmament intended to equip its armed forces with a range of modern weapons systems. The stated goal of GPV 2020 is to increase the share of modern weapons held by the armed forces to 70 percent by 2020. To achieve this objective, the Kremlin has allocated 19 trillion rubles for procurement and research and development (R&D) through the year 2020.¹ Due to Russia's recent economic problems, its rearmament plans are being revised, and are likely to be delayed and scaled back as well. Nevertheless, under GPV 2020, for the first time in many years, Russia's armed forces have received a significant infusion of modernized military equipment.²

The objectives set forth in GPV 2020 are quite ambitious, envisioning significant upgrades in military equipment across virtually all weapons categories. While in some cases GPV 2020 calls for delivery of upgraded systems only, it also provides for the development of a wide range of new systems, including, inter alia, fifth-generation combat aircraft, modern navy warships, and new tanks and armored vehicles. In addition, it calls for delivery of a range of new weapon platforms in areas where Russia has traditionally lagged behind, such as command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR); unmanned aerial vehicles (UAVs); prompt global strike systems; and, other

weapons characteristic of the Revolution in Military Affairs.³

Russia's ambitions for modernizing its military go well beyond what is specified in GPV 2020. As Dmitry Adamsky noted, President Vladimir Putin himself sees defense modernization as being "aimed to provide Russia with long-term abilities to produce next-generation weapons and competitive military technologies."⁴ Former Deputy Prime Minister Dmitry Rogozin likewise alluded to the need for Russia to narrow the military technology gap with the West.⁵ To assist in this effort, Russia established the Advanced Research Foundation (ARF), a defense agency built on the model of the U.S. Defense Advanced Research Projects Agency (DARPA). The ARF's mission is to sponsor high-risk R&D programs to allow Russia to develop breakthrough weapons technologies. The ARF is charged expressly with "bridging the significant lag in the sphere of high S&T [science and technology] in the realm of defense" in order to ensure a "genuine qualitative-revolutionary leap forward in Russian development."⁶

When the statements of Russia's leaders are examined in the context of the objectives for military modernization set forth in GPV 2020 and for the ARF itself, it becomes clear that Russia's aim is no less than significantly narrowing the military technology gap with the West across a broad spectrum of modern weapon systems. The Russians recognize, of course, with a defense budget only a fraction of the size of that of the United States, that they cannot produce such weapons in sufficient numbers to achieve real parity in terms of fielded capability. Russia clearly wants to develop such weapons and be able to produce them to the extent their budget and doctrine allow.

However, developing the kinds of advanced weapons systems needed to achieve these ambitious goals will require a significant boost in the level of Russia's science and technology (S&T). Most observers, both inside and outside Russia, continue to believe that Russian military S&T lags significantly behind that of the West, although they differ on whether and to what extent Russia can narrow the gap. The statement of journalist David Majumdar represents one common view: "Russia can't hope to match the United States and its allies technologically."⁷ Others are less confident, including former Deputy Secretary of Defense Robert Work, who stated that bold action was needed to stay ahead of rapid weapons development by Russia and China.⁸

The key question, therefore, is whether Russia's national innovation system will be able to deliver the kinds of advanced S&T needed for Russia's armed forces to narrow the military technology gap with the West significantly. This chapter will explore this question further by examining the key elements of Russia's national innovation system—that is, the set of R&D institutions and policies that operate collectively as part of a linked system to deliver scientific and technological innovations for the Russian state—with the aim of assessing their potential contributions to defense.⁹

Russia retains a number of key advantages when it comes to S&T. According to the Organization for Economic Cooperation and Development (OECD), 27 percent of Russian adults between the ages of 25-64 have attended higher or post-graduate education, the 4th highest among all countries sampled.¹⁰ Moreover, 25 percent of all university students graduate with science and engineering degrees, placing Russia 10th on the list of countries sampled.¹¹ Russian S&T remains strongest in the hard sciences of most relevance to

military technology, including physics, chemistry, and engineering.¹² Russia also still has a highly developed network of public and private R&D institutions upon which it can draw, including many of high standing.

On the other hand, it is clear that Russian S&T has declined significantly since the Cold War. According to Thomson-Reuters, Russia accounted for just 2.6 percent of global academic publications in 2010, less than Australia and Canada and significantly less than China, a rather modest output level from the former scientific superpower.¹³ Moreover, Russia's S&T position seems to be trending downwards. Another study found that, for example, between 1994 and 2012, all major countries substantially increased their volume of published academic papers—except Russia, which experienced a 4-percent decline.¹⁴ In addition, Russian spending on R&D, at just 1.19 percent of gross domestic product (GDP) in 2014, remains well below the OECD average of 2.37 percent.¹⁵

Clearly, Russia will need to improve its performance if it hopes to catch up militarily with the West. Russia can obtain the necessary S&T through three potential channels. These include the civilian sector (both public and business sector R&D), foreign technology sources, and the defense R&D system itself. So what are its prospects?

DOMESTIC NONDEFENSE SOURCES OF SCIENCE AND TECHNOLOGY

Russian Academy of Sciences

The Russian Academy of Sciences (RAS) is the country's oldest and most prestigious center of science and learning. First established in 1724, the RAS has always occupied a central place in Russian science.

Over the years, RAS researchers have made numerous important contributions to the field of science, giving it a well-earned international reputation. Due to its high prestige, the RAS has consistently been able to attract the top research talent in the country. The RAS has traditionally been an important source of military-related S&T for Russia's defense industry as well.

With nearly 50,000 researchers and a network of over 400 separate research institutes, the RAS is the largest provider of basic research within Russia today.¹⁶ The bulk of its work is heavily weighted toward the hard sciences most relevant to military technology, although RAS scientists also perform work in a wide variety of other fields as well. RAS is part of a broader set of government-owned science academies, which collectively account for around 14 percent of Russia's gross expenditures on research and development (GERD).¹⁷ However, RAS is the only one of the academies that has a significant role in defense. Over the years, the RAS has been instrumental in achieving important breakthroughs in nuclear weaponry, chemical and biological warfare, laser weaponry, and other fields of military-related S&T.¹⁸

In the view of many observers, however, the RAS has been in a persistent state of decline since the fall of the Soviet Union. One leading science magazine asserted, for example, "only a small fraction of academy institutes can be considered internationally competitive. . . . Many produce only poor science."¹⁹ Another expert referred to them as "typically large institutions with low "impact factor" ratings in the world scientific literature."²⁰ RAS researchers themselves have acknowledged a certain decline in performance, although they have attributed it primarily to a lack of sufficient funding from the state.²¹

RAS's declining performance is also reflected in the relatively low level of outputs generated by academy scientists in recent years. As of 2009, for example, RAS scientists produced on average just 1.43 publications each, compared with 9.17 for scientists at the German Max Planck Society.²² Its low levels of performance are also reflected in the relatively poor quality levels of RAS publications. According to the same 2009 study, RAS scientists are cited on average 2.66 times versus 11.97 for Max Planck scientists.²³

Several reasons have been offered to explain the RAS's evident decline in performance. Like most R&D sectors in Russia, the RAS has had to make do with obsolete infrastructure and an aging workforce.²⁴ Moreover, the RAS has been significantly underfunded in recent years.²⁵ Inadequate funding has been due to a variety of factors, including persistent budget constraints; the desire to shift R&D away from academic institutes and more toward higher education institutes; and, a decline in the overall demand for fundamental research, which has fallen out of favor within Russia in recent years.²⁶

Poor performance has also been caused by certain institutional failings. For years, the RAS has enjoyed a high degree of autonomy, with full discretion to set its own research agenda, and to direct funding to whichever research institutes it deemed appropriate.²⁷ For the same reasons, in exercising these powers, the RAS has had little obligation to justify its funding decisions, or to account sufficiently for their results. Lack of accountability has had a deleterious effect on RAS performance. Having so little need to account for their activities, RAS authorities have had little incentive to improve performance.

To address these persistent performance problems, starting in 2013, the government initiated a series of sweeping reforms of the RAS, merging it with 2 smaller academies; stripping away all of its 400-plus research institutes and associated federal property; and placing them under the control of a newly created governmental agency, the Federal Agency for Scientific Organizations (FASO).²⁸ For now, the RAS will continue to coordinate basic research activities of the institutes and evaluate their results, while FASO will manage the academy's finances, property, and infrastructure.²⁹ FASO has also committed to shifting more of its funding toward competitively awarded research grants.³⁰ Reforms are far from over, however, and additional measures are expected.

It remains to be seen how effective these reforms will prove in the long run. In the short run, however, they have had a decidedly negative effect. The reform process has thrown the RAS into a state of deep turmoil, with many RAS institutes now fearing for their survival. Consolidation is underway, and there is an expectation that this will ultimately lead to closures for many RAS institutes and budget and personnel cuts for others.³¹ Those that remain open will eventually have to rely more on competitively awarded research grants for their survival. There is great uncertainty regarding the proposed grant-making process especially regarding the fairness of the process by which funding decisions will be made.³² The reforms are also undermining the morale of RAS personnel. In one, younger RAS researchers had expressed great concerns over the impact of the reforms. In fact, several researchers have resigned to take positions elsewhere.³³

Given these conditions, it seems unlikely that the defense industry can expect a major boost in

military-related science and technology from the RAS any time soon. As a whole, the RAS has not been performing all that well in recent years. Moreover, things are likely to get worse before they get better, as reforms are poised to take an additional toll on the RAS's already diminished capacities. In fact, the RAS's contribution to journal papers has already fallen off significantly since reforms were announced.³⁴ More importantly for its long-term prospects, the RAS seems to have fallen somewhat out of favor with Russia's leaders in recent years, as they have sought to give Russia's universities a greater role in R&D.³⁵

Nevertheless, over the long term, the potential remains for the RAS to make a greater contribution to military R&D. Much of the best scientific talent in the country still resides in the RAS, while many RAS institutes continue to demonstrate high academic achievement.³⁶ There is real potential for long-term recovery, but achieving this will require diplomacy, skill, and persistence. If Russia's leaders can manage the reform process properly and find ways to sustain funding, the RAS could emerge once again as a significant factor in restoring the long-term military potential of the country.

Meanwhile, the RAS is already taking on an increased role in military R&D. At the time of this writing, RAS experts are now planning to work with their Ministry of Defense (MoD) counterparts at the Scientific-Technical Council (STC). The STC is a senior advisory group that provides scientific and technical counsel to the Military-Industrial Commission, the agency charged with overseeing the country's weapons procurement programs. Under the new initiative, the RAS and STC will collaborate to develop a program of fundamental and exploratory research designed to

enhance Russia's long-term defense and security.³⁷ In another sign of increased cooperation, the chief designers on some of Russia's most important weapons programs will also serve as commissioners to help steer some of the most advanced research programs at the RAS.³⁸ It is not yet clear precisely how these particular linkages will work, but the fact of their establishment is a clear indication that the government is seeking to elevate the RAS's role in national defense.

Institutes of Higher Education

Russia's institutes of higher education are another potential source of high-value military-related S&T. With a network of over 1,100 higher education institutes (HEIs) as of 2011, Russia's university system is the second largest public R&D institution in the country.³⁹ Its work is evenly split across all three areas of R&D: basic research (32 percent), applied research (42 percent), and development (26 percent).⁴⁰ The country's elite universities, such as Moscow State University and St. Petersburg State University, are well-known centers of advanced scientific research, and over the years, their scientists have made important contributions to military science and technology.⁴¹ There has long been considerable interaction between universities and the RAS, as university scientists frequently collaborate with RAS counterparts to pursue shared research programs, while RAS researchers often teach part-time at Russian universities.

Despite their many notable achievements, Russia's higher education institutes have long played a secondary role in the Russian R&D system and military R&D as well. In 2015, the HEI sector accounted for just 9 percent of GERD.⁴² By contrast, universities in

the United States currently account for over 13 percent of total R&D spending, and their share is even higher in Germany (17 percent) and the United Kingdom (26 percent).⁴³ The relatively low level of R&D conducted by Russian universities is a legacy of the Soviet era, where universities focused primarily on education, while other institutions, such as the RAS, handled R&D.⁴⁴ The situation is quite different in the United States, where publicly sponsored R&D has traditionally been performed within large, integrated research universities.

Research universities, like those in the United States, France, and Germany, where research and education are combined, have proven to be much more effective in generating innovation than stand-alone research institutes of the kind that predominate in Russia.⁴⁵ At one time, all three countries operated both kinds of institutions as well, and each had their supporters. Over time, however, it became increasingly clear to academic administrators that integrated research universities consistently outperformed dedicated research institutes in terms of their overall research effectiveness.⁴⁶

Based on careful observation, it was determined that the close interaction between faculty and students coupled with the dynamic atmosphere prevailing at most research universities and the use of a peer-reviewed, competitively-awarded grant system, had a profoundly positive effect on the quality of research. Based on such findings, most of the stand-alone institutes in the United States were eventually phased out in favor of research universities, which are now the predominant form in the United States. Over the years, research universities have been instrumental in enabling the United States to become the world's

leading S&T power, which is why one noted science historian had called them, “the most powerful engines of knowledge the world has ever seen.”⁴⁷ The advantages of research universities have also been increasingly recognized in France and Germany, where universities have been given higher priority in R&D than they have been in Russia. Still, in both of these countries, attempts to enhance the role of universities have been hampered by the institutional power of standalone research academies within their respective national innovation systems.⁴⁸

Russia’s leaders, starting in the mid-2000s, have been attempting to shift more toward research universities and away from the academy model.⁴⁹ To this end, they have adopted a number of measures designed to elevate the role of universities within the country’s R&D system. For one thing, spending on R&D has increased dramatically in recent years. Between 2000 and 2015, the budgeted R&D spending within the HEI sector was increased by a factor of three.⁵⁰ The Ministry of Education and Science (MES) has also provided supplemental R&D funding for the HEI sector, through programs such as National Priority Project in Education, from which grants of \$33 million each were awarded to 57 universities to develop innovation programs.

Russia has also been busily transforming higher education institutes into fully integrated research universities. Between 2008 and 2010, the Kremlin designated 29 leading universities to serve as national research universities.⁵¹ Each selected university was awarded \$60 million in additional funding over a 5-year period to create new laboratories and to establish internationally competitive research programs.⁵² Around the same time, Moscow State University and

St. Petersburg State University were given special status as “unique scientific and educational complexes,” and separate expenditure lines in the national budget to allow them to create world-class research programs.⁵³ Finally, in 2013, the MES initiated the 5/100 Program, whereby 14 universities were selected to receive substantial additional funding in order to propel at least 5 of them into the world’s top-100 university ranking lists by 2020.⁵⁴

While Russia’s leaders seem clearly committed to these reforms, thus far their results have been relatively meager. The percentage of professors engaged in research at HEIs has increased slightly, from 19 percent to 23 percent between 2010 and 2013.⁵⁵ More impressively, the number of universities engaging in research also increased from 390 in 2000 to 603 in 2009.⁵⁶ In addition, between 2009 and 2012, the overall volume of R&D more than tripled at the newly designated national research universities.⁵⁷

Taken as a whole, however, the reforms have not yet lived up to expectations. Out of Brazil, Russia, India, China, and South Africa (BRICS) countries, Russian universities continue to lag behind their counterparts in terms of publication outputs.⁵⁸ In a comparison of top five universities in various BRICS countries, for example, Russian universities generally were ranked lowest.⁵⁹ Even more ominously, R&D participation levels remain quite low at most Russian universities. As recently as 2013, according to the United Nations Educational, Scientific, and Cultural Organization (UNESCO), more than 75 percent of the teaching staff at Russian universities was still not conducting any research at all.⁶⁰ Moreover, Russian universities are still no match for the more established research institutes of the RAS. According to the Web of Science, “of

the 112 most cited Russian scientific journals in 2011 . . . 95 [were] published by the [RAS], while only two [were] published by universities.”⁶¹

Moreover, Russian universities have yet to make significant progress in boosting their international rankings. In 2015, for example, Moscow State University ranked only 161 in the Times Higher Education - QS rankings, while St. Petersburg State University barely made the list with a ranking in the 401-500 range.⁶² In addition, the quality and complexity of research undertaken at many universities is still not very impressive. The sector’s limited progress is reflected by what a recent UNESCO report termed “the relatively small scale and low level of applied research, experimental development and innovation performed by universities.”⁶³

Given these rather modest results, it seems unlikely that the HEI sector will become a major contributor of military-related S&T any time soon. While they hold great promise, the process of creating research universities in Russia is still at a very early stage of development. As two experts recently suggested, “HEIs still occupy a fairly low position when it comes to the generation of new knowledge.”⁶⁴ Moreover, research in Russia is still hampered by poor framework conditions, especially the lack of “academic freedom, transparency and collegiality in decision-making, open and honest competition, and blind peer-review practices” which have proven so important for the Western research university model.⁶⁵ Long-term funding for the HEI sector is declining as well.⁶⁶ Russian universities still depend heavily on tuition payments, but enrollment levels are expected to decline significantly over the next several years due to the low birth rates of the 1990s.⁶⁷

Nevertheless, Russian universities, especially elite universities, are likely to play an increased role in military R&D. Recently, for example, President Putin called for new measures to improve linkages between the military and universities in order to generate breakthrough ideas for national defense.⁶⁸ Citing the U.S. example, he is also now pushing to involve universities in programs geared for the modernization of the defense industry.⁶⁹ To this end, defense industry spending on R&D conducted by universities increased by 80.5 percent in 2013.⁷⁰ Russia's armed forces are also reportedly establishing eight new research units, each linked to one of the service branches or a related military organization, such as the Military Academy of Communications. These research units, which will focus on military R&D, will be staffed by scientists from Russia's leading universities.⁷¹

Business Sector

Russia's civilian business sector is another potentially important source of S&T for Russia's military. Currently, Russia's economy as a whole (including both the civilian business and defense sectors) comprises nearly two million enterprises.⁷² The vast majority of these enterprises are part of the civilian business sector. According to Dmitry Medvedev, the military-industrial complex consists of around 1,300 enterprises.⁷³ There are also several hundred unregistered defense companies. By implication, the civilian business sector includes all of the rest. Manufacturing enterprises, which are key contributors of S&T for national defense, account for around 36 percent of Russia's business sector, while service-oriented firms make up another 60 percent.⁷⁴

In the United States and other advanced Western countries, the military relies heavily on the civilian business sector for a range of commercial and dual-use technologies. This is not the case in Russia, where the role of the business sector in military S&T has not been very significant. There are important exceptions to be sure. Key civilian high-technology industries, including nuclear energy, commercial space systems, software, and nanotechnology, contribute in important ways to Russia's military development. Aside from these select areas, however, the civilian business sector has very little to offer in the way of high technology for the defense sector.⁷⁵

The nuclear industry is one of the few high-technology bright spots within Russia's business sector. As a major producer of enriched uranium and a leading exporter of atomic energy plants, the nuclear industry remains highly competitive on international markets.⁷⁶ Due to its importance for Russia's export position, Moscow has invested heavily in R&D for the nuclear industry as well. This has allowed the industry to upgrade key technologies, including its sophisticated gas centrifuge technology, enabling Russia to maintain a comparative advantage in fuel delivery over all major international rivals.⁷⁷

The civilian nuclear industry is also an important R&D contributor in the military domain. Civilian fuel processing facilities are capable of serving as key sources of enriched uranium for Russian nuclear weapons programs, Navy submarines and warships, and research reactors used for nuclear weapons R&D.⁷⁸ Moreover, to facilitate collaboration, the civilian and military sides of the industry were consolidated in 2007, and placed under the control of a single entity, Rosatom.⁷⁹ This has led to tighter integration between

civilian and military R&D, allowing for a rapid cross-over of technology between the two sectors. For example, VNIIEF and VNIITF, two leading Russian nuclear research institutes, reportedly work on both civilian and military nuclear programs.⁸⁰

The commercial space industry is another key area of technological strength for Russia's business sector. The science-intensive space industry produces a range of technologically sophisticated products, some of which are competitive on international markets. For example, Russia's Proton rocket is used routinely by a range of international clients for delivering commercial payloads into space.⁸¹ Likewise, Russia's RD-180/181 rocket engines have been exported to the United States, where they are currently used in two different rocket programs.⁸² Russia's space industry also produces a range of commercial satellites.⁸³ Although Russian satellite systems are not very competitive on international export markets, the ability to construct increasingly sophisticated satellites still represents a substantial technological achievement for Russia's space sector. Moreover, their design and development generate additional technological spin-offs that can be used to build better military satellites.

Russia's military has benefited in substantial ways from Russia's civilian space programs. For one thing, Russian launch programs routinely are used to deliver military satellites into space. The military also benefits from the tight integration between Russia's civilian and military space programs. In most cases, the same design bureaus tend to work on both civilian space and military missile programs.⁸⁴ Through such channels, advances in civilian rocket programs and satellite technology are able to find their way into Russia's intercontinental ballistic missile (ICBM) and military

satellite programs and vice versa. Consolidation of the space industry has been underway since 2013.⁸⁵ Ultimately, this should result in an even greater integration of military and civilian R&D.

Russia's software industry is another important area of technological strength for the business sector. It is one of the few high-technology sectors to have emerged within Russia since the Cold War.⁸⁶ The software industry has grown rapidly from its modest beginnings in the early 1990s into a \$5 billion per year industry as of 2014.⁸⁷ Even more impressively, the industry derives about half of its revenues (\$2.6 billion in 2015) from exports, a clear sign of its international competitiveness.⁸⁸ Russian software companies, such as Kaspersky Labs, produce a wide range of specialty software products for both domestic and international markets.⁸⁹ Other software companies have found success in Russia's growing offshore sector, where they focus on developing high-end software applications for a range of international clients.⁹⁰

The software industry is of critical importance to national security, which is why it is now considered a strategic sector within Russia.⁹¹ Russia has invested significant R&D resources in the information technology and telecommunication (ICT) sector, which has contributed to the high growth of the software industry in recent years.⁹² Firms in the software industry are heavily involved in fulfilling the information technology requirements of the defense sector.⁹³ For example, Bars Group, a Russian software company, is developing cloud management solutions for Rostec, a leading defense company.⁹⁴ Russian software firms are also among the world leaders in information security and vulnerability testing, and they are likely involved in developing cyberwarfare applications as well.⁹⁵

Russian leaders also hope that the nanotechnology industry will emerge as a leading high-technology sector in the near future.⁹⁶ Since 2007, Russia has poured billions of dollars into the development of this sector, which has been singled out for intensive development.⁹⁷ Russia's leaders see nanotechnology as a key industry that can help drive the government's broader modernization agenda.⁹⁸ From the start, nanotechnology has also been seen as a key industry for purposes of national defense as well.⁹⁹ Nanotechnology has great relevance in many fields important to defense, including fiber optics, electronics, material science, energy, and many others.¹⁰⁰ The Kremlin believes that nanotechnology will lead to revolutionary changes in weapons and defense.¹⁰¹

A few defense-related applications have already begun to emerge from the sector. For example, in 2008, Russia tested the "father of all bombs," a massive fuel-air explosive device reportedly developed in part using nanotechnology.¹⁰² Russia has also been using nanotechnology to develop a new generation of military uniforms and body armor for its soldiers.¹⁰³ The industry is also making progress in areas such as opto- and nano-electronics, which have broad military applications. It remains to be seen how significant the industry will be for national defense, however, as Russia got a relatively late start in the field, and continues to lag significantly behind other leading powers.¹⁰⁴ Thus far, the military contributions of Russia's nanotechnology industry have not been very impressive. The industry has yet to demonstrate that it has acquired the technology and knowhow to both develop practical military applications and to scale up manufacturing as needed for large-scale production.

Aside from these select areas, however, Russia's defense industry relies to a far lesser extent on its business sector for advanced technology than does the U.S. defense industry, which has an enormous appetite for commercial and dual-use technology. Russia's business sector just does not have that much to offer in the way of high-technology products for the defense industry. What little was inherited from the Soviet Union has largely disappeared, and few new products have arisen to replace it. As one article noted, "Russian high-tech production was well developed before transition, but did not survive the competition from high-quality imported products, while low-tech manufacturing suffered from low-cost competition from Asia."¹⁰⁵

This bleak picture is borne out by the data as well. Perhaps the best indicator of the technological sophistication of the business sector is the performance of its products on the export markets. Unsurprisingly, Russia's export profile remains heavily weighted toward oil and gas, which accounted for nearly 65 percent of Russia's total exports in recent years.¹⁰⁶ In 2013, natural resources, including commodities such as metals, minerals, and wood, accounted for 78 percent of Russia's total exports.¹⁰⁷ Manufactured goods constituted only 20 percent of Russia's total exports in 2013.¹⁰⁸ However, these have been dominated by relatively low-tech items, which are not very competitive, as evidenced by the fact that they are predominantly exported to states within the Commonwealth of Independent States (CIS) area.¹⁰⁹ Attempts to export such products to markets outside of the CIS have been largely unsuccessful.¹¹⁰ As the World Bank put it, Russian exports of "sophisticated, higher-value-added goods and services remain conspicuously absent."¹¹¹

One of the major reasons for the relatively low innovation levels within the business sector is that firms are simply not investing enough in R&D. In 2013, business enterprise research and development (BERD) within Russia accounted for just 28.2 percent of GERD.¹¹² By contrast, in OECD countries, the corporate sector's share of GERD is much higher: around 65 percent on average.¹¹³ In those countries, the business sector plays a central role in driving innovation. This is not the case in Russia, where the business sector plays a far lesser role in Russia's national innovation system.

Structural problems play a large part in explaining the low levels of R&D investment in Russia's corporate sector. For one thing, natural resource industries that dominate Russia's business sector traditionally invest significantly less than other sectors in R&D.¹¹⁴ The reason is that natural resource enterprises tend to be much less innovative in comparison with firms in other sectors.¹¹⁵ The high levels of concentration in Russia's corporate sector have also tended to suppress investment in R&D.¹¹⁶ According to the OECD, "Between 2001 and 2007 the share of market sectors assessed to be highly concentrated in Russia increased from 43 to 47 percent," an extremely high level in comparison with other OECD countries.¹¹⁷ Given that competition tends to drive innovation, the low levels of competition within the business sector have served as a major disincentive for firms to invest in R&D.

Meanwhile, the small and medium enterprise (SME) sector in Russia remains underdeveloped. There is a much smaller proportion of SMEs in Russia than is typical in other highly developed states. Moreover, Russian SMEs tend not to be very innovative. According to the OECD, in 2015, less than 6 percent of Russian SMEs reported any innovation activity at all,

well below the OECD average of around 50 percent.¹¹⁸ SMEs have struggled to gain entry into and survive in markets dominated by large firms with excessive market power.¹¹⁹ They have also been disadvantaged by Russia's unfavorable business climate, which, despite some improvement, remains especially hard on smaller firms. Persistent problems facing SMEs include corruption, delays in obtaining permits, high tax burdens, and poor rule of law conditions.¹²⁰ Since SMEs are crucial sources of innovation in highly developed countries (accounting for 80 percent or more of new developments in the United States),¹²¹ their relative absence in Russia helps to account for the low levels of innovation in the business sector.

Given the many shortcomings described earlier, it seems unlikely that Russia's business sector will become a major contributor of advanced military S&T any time soon. Except in a few select areas, such as nuclear energy, space, and software, the business sector is dominated by firms that exhibit relatively low levels of innovation and have little to offer in the way of advanced technology. Given the absence of knowledge-based industries, Russia's business sector will be unlikely to deliver the kinds of advanced commercial and dual-use technologies that have been of such great importance in promoting military development in the most advanced countries such as the United States.

FOREIGN SOURCES OF TECHNOLOGY

Since the Cold War, foreign sources of military technology have been crucially important for Russia's defense industry. After the collapse of the Soviet Union, long-standing strictures against importing foreign military technology were relaxed significantly. Soon thereafter, Russia began importing significant

amounts of military technology from former Soviet states, such as Ukraine and Belarus.¹²² Establishing such links was deemed essential to maintaining supply chains that had been disrupted by the breakup of the highly integrated Soviet defense industry.¹²³ Since then, Russia has remained significantly dependent on such states, especially Ukraine, for the supply of key weapon components.

Second, once trade relations with the West had been liberalized in the early 1990s, Russia began to incorporate advanced Western technology into many of its weapons systems. Russian arms sales contributed to this trend, as some of its arms trading clients insisted on substituting Western components in place of Russian components as a condition for purchasing the system.¹²⁴ For example, French avionics systems have been included in exported Russian aircraft for many years.¹²⁵ Over time, Russian weapons systems came to rely heavily on Western components, especially electronics.¹²⁶

Around 2009, for the first time, Russia began to purchase complete weapons systems from the West. The most noteworthy case involved the planned purchase of up to four *Mistral*-class amphibious assault ships from France at \$750 million each.¹²⁷ There were several other instances as well, including purchases of unmanned drones from Israel, helicopter engines and light armored vehicles from Italy, combat simulators from Germany, and thermal imagers and light armored infantry kits from France, among others.¹²⁸

The Ukraine crisis has severely limited Russia's access to foreign military technology. Because of the crisis, Ukraine imposed a comprehensive embargo on further arms transfers to Russia. At the time, Russia was relying on Ukraine for as much as 87 percent

of Russia's total military-related imports.¹²⁹ Several important Russian weapons programs were disrupted as a result. Due to a lack of Ukrainian marine turbine engines, for example, Russia's Navy was forced to halt construction of three Admiral Grigorovich frigates.¹³⁰ The embargo also led to a decline in production of Russian combat helicopters, which have been heavily reliant on Ukrainian engines.¹³¹ Moreover, the long-planned modernization of Russia's air transport fleet has been jeopardized due to disruption of ties with Antonov Aircraft Corporation, a critical Ukrainian supplier.¹³² Other programs were affected as well.

Russia has also been subjected to a wide-ranging arms embargo from the West because of the Ukraine crisis. Participants in the embargo include the United States, the European Union (EU), Japan, and Australia.¹³³ With some variation between countries, the embargo prohibits exports to Russia of a wide range of military systems, components, and dual-use technologies, and it has had a far-reaching impact on Russia's military production. For one thing, the embargo had finally put an end to the transfer of major weapons systems like the *Mistral*.¹³⁴ Of even greater impact, however, has been the ban on dual-use technology.¹³⁵ According to a Russian adviser to the Ministry of Industry and Trade, more than 50 percent of the microelectronic components used in Russian military systems are purchased abroad.¹³⁶

Russian aircraft especially depend on foreign electronics. High-resolution radar systems installed on Russian combat aircraft are said to rely heavily on U.S. electronic components, for example.¹³⁷ Russian air defense systems also reportedly rely significantly on such components.¹³⁸ Russian space systems have been affected the most, since Western electronic components

account for as much as 75 percent of those used to build Russian satellites systems.¹³⁹ This is why the construction of new GLONASS (GPS analog) satellites has now been virtually halted.¹⁴⁰

Russia's defense industry has also been significantly affected by the loss of access to Western industrial machinery and manufacturing equipment. According to Julian Cooper:

Defense plants have been buying advanced machine tools and other production equipment in significant quantities from leading European, Japanese and US firms, and Rostec [a leading Russian defense company] has been organizing joint enterprises in Russia with some of these companies to meet some of their requirements.¹⁴¹

Reduced access to advanced machine tools has been a significant problem for the defense sector.

In response to sanctions, Russia recently launched an ambitious import substitution program. Under this program, Russia is attempting to develop, or otherwise obtain, suitable replacements for a wide range of critical items. Russia has now identified a total of 826 critical components that must be replaced from both Ukraine and the West.¹⁴² The first priority will be to replace affected Ukrainian components and subsystems. Russia has identified 186 critical Ukrainian components that must be replaced by 2019.¹⁴³ This is seen to be by far the easier challenge, since most Ukrainian components are quite old, some having been first developed more than 40 years ago.¹⁴⁴

Thus far, Russia has been making steady progress in developing replacements for Ukrainian components. According to then-Deputy Defense Minister Yury Borisov, as of July 2015, substitutes had already been found for 57 out of 102 Ukrainian items planned for

the year.¹⁴⁵ Russian officials acknowledge, however, that replacing some of the more complex Ukrainian products will be more difficult. Developing replacements for Ukrainian marine turbine engines, for example, will not be completed until 2019, according to the plan.¹⁴⁶ Nevertheless, Russian officials remain optimistic that they will secure replacements for all of the most critical Ukrainian components in reasonably short order.¹⁴⁷

Upon closer inspection, however, such expectations seem unduly optimistic. While there is little doubt that Russia can produce suitable alternatives for most Ukrainian items, replacing affected marine, helicopter, and aircraft engines is likely to prove much more difficult. Russia lacks comparable production capability for such items, and has little prospect of developing such capability within the timeframes called for in the import substitution plan.¹⁴⁸ For example, NPO Saturn, a Russian firm, has been attempting to develop a suitable marine gas turbine engine for many years without much success.¹⁴⁹ Replacing Ukrainian aircraft and helicopter engines is likely to prove challenging as well, since Russia has not been investing significantly in the production of these kinds of engines for many years.¹⁵⁰

The import substitution plan also calls for Russia to obtain suitable replacements for all critical items that it can no longer obtain from the West. Replacing Western technology is acknowledged to be the more difficult of the two challenges, however, because of the great difficulty in replicating high-technology Western components. According to Rogozin, some 640 high priority items sourced from the West, mainly optical and electronic components, must be replaced, 90 percent of them by 2018, with the remainder by 2021.¹⁵¹

Thus far, Russia's progress in replacing Western components has been quite limited, however. According to Yury Borisov, during the program's first year, Russia produced substitutes for just 7 of the 127 items scheduled for replacement.¹⁵² While acknowledging the limited progress, he pointed out that the work will take time to develop, adapt, and test, while indicating that better results were expected by the next review.¹⁵³ In March 2016, President Putin noted that production of replacements for many components had already been achieved, but that problems persisted with a number of important components, parts, and accessories.

Domestic electronics firms have been engaged in developing replacements for several affected Russian systems. Andrey Tyulin, the Director General of Joint Stock Company Russian Space Systems, believes it will take 4 years to develop replacement components for the GLONASS system.¹⁵⁴ KRET, a Russian defense electronics firm, claims that it has already achieved import substitution for its electronic warfare systems.¹⁵⁵ Russian defense officials have also been actively seeking replacement electronics in China, India, Indonesia, Southeast Asia, and Thailand.¹⁵⁶ These efforts have been met with some success. Reportedly, Chinese firms have now agreed to supply electronic components for Russian space programs.¹⁵⁷

Despite such signs of progress, Russia's prospects for overcoming its longstanding dependence on Western technology remain bleak. While Russian officials speak of replacing 640 items, this is just a small portion of what the West has been providing. Rogozin himself admitted that thousands of products were involved.¹⁵⁸ Reproducing such components domestically is going to be a major challenge. Russia's electronics industry remains woefully underdeveloped, for example, which

is why one report indicates that it will take until 2020 just to reduce dependence on foreign electronics from current levels of 70-90 percent in critical industries to just 50-60 percent.¹⁵⁹ This is also borne out by the significant amount of reverse engineering that Russia has been conducting in this area.¹⁶⁰ In some cases, production of replacement items will have to be started from the beginning.¹⁶¹

Finding suitable replacements for Western production machinery will be equally problematic. Russia's machine-building industry has been badly depleted since the Cold War, and is currently incapable of manufacturing the kinds of precision tools and manufacturing systems needed to produce advanced weapons systems. This explains why Russia has depended on external machinery suppliers for 36.5 percent of its requirements as of 2013.¹⁶²

In sum, Russia's prospects for obtaining advanced military technology from foreign sources have diminished significantly because of the Ukraine crisis. Due to Western and Ukrainian arms embargoes, Russia's defense industry will now have to make do with far less. While Russia will still be able to obtain a certain amount of military-grade technology from other countries, such as China and India, they cannot fully substitute for what Russia has been obtaining from the West. Thus, Russia's defense industry will be unable to obtain a significant boost in military S&T from foreign sources either. Moreover, import substitution is unlikely to fill the gap. As one Russian commentator put it, "[How can we just close] the economy and assume that we have a reserve of brain, technology, industrial base after a quarter century, after the massive loss incurred; all this is wrong."¹⁶³

THE DEFENSE INDUSTRY

The defense industry is by far the most important source of military S&T operating within Russia today. According to Prime Minister Medvedev, as of 2013, the defense industry comprised around 1,300 defense enterprises employing over 2 million people.¹⁶⁴ The industry's military R&D sector is also the largest R&D sector operating within Russia today. In recent years, it has accounted for around 35-40 percent of Russia's GERD.¹⁶⁵ As of 2010, the military R&D sector comprised 557 research institutes, design bureaus, and related R&D organizations of various kinds.¹⁶⁶ The military R&D sector focuses on two core activities: applied research involving new military technology, and weapons development.

The defense industry remains by far the most technologically sophisticated sector of Russia's economy. At the same time, its military R&D sector remains the most innovative and technologically advanced sector of Russia's national innovation system as a whole. This is as true today as it was in Soviet times. Consequently, if Russia's armed forces are going to receive the kind of boost in military S&T needed to rapidly catch up with the West, it will have to come from the defense industry itself.

To a large extent, the defense sector is, in fact, Russia's high-technology sector. It produces the vast majority of Russia's high-technology products in both the military and civilian spheres.¹⁶⁷ This includes a wide range of technologically sophisticated weapons systems. In fact, Russia remains one of only a handful of countries that can produce the full spectrum of modern weapons systems, many of which are competitive on the export markets. It also includes the vast

majority of the country's high-technology civilian products. The defense industry manufactures more than 60 percent of Russia's high-technology medical equipment; nearly all of its precision, optical, and electronic equipment; and, a good deal of its chemical and pharmaceutical products as well.¹⁶⁸

Despite its prominent position in the economy, the technological performance of the defense industry varies considerably, depending on the sector. As was the case in the business sector, there are areas of technological strength and areas of technological weakness. In the defense sector, however, the situation is significantly better. Certain sectors, such as aviation and air defense, continue to produce a wide range of technologically sophisticated products, much of which is at or near world standards. In a few select areas, in fact, Russian systems are the best in the world. Alongside these high-performing sectors, however, most sectors of the defense industry continue to lag behind the world technology frontier, in some cases significantly.

Aviation is one of the leading sectors of the defense industry. Russia's top aviation companies, such as Sukhoi and Irkut, produce some of the best combat aircraft in the world. Russian fourth-generation combat aircraft, such as the Su-35, are of high caliber; according to one senior U.S. defense official, it matches up quite well against Western counterparts.¹⁶⁹ The development of stealth aircraft remains a problem area for Russia's aviation sector, however, as the PAK-FA, Russia's latest attempt, remains years behind schedule, and lacks true fifth-generation engines and avionics systems.¹⁷⁰ Nevertheless, as aerospace analyst Carlo Kopp put it, while "the US retains a decisive lead . . . in top end stealth technologies, and some aspects of networking and highly integrated systems software

[, the] Russians have closed the gap in most other areas."¹⁷¹

Air defense is another leading sector of the defense industry. Russia's so-called double-digit SAMs (based on their NATO code-names [e.g., SA-20]) have long commanded respect among military analysts.¹⁷² Russia's S-300 and S-400 air defense systems are among the most advanced systems in the world. The S-400, Russia's most advanced air defense platform, employs many innovative features, including mobile launchers, multimode radar, and an array of missiles designed to provide layered air defense.¹⁷³ A U.S. official recently characterized the S-400 as a "capable weapon system that poses a significant threat to anyone."¹⁷⁴

The tactical missile sector is another key stronghold of Russia's defense industry. Russian missile manufacturers such as Raduga and Novator currently produce a wide range of advanced tactical missile systems. This includes an entire family of sophisticated anti-ship cruise missiles, such as the Sunburn and the Yakhont, which have no operational equivalents anywhere.¹⁷⁵ Russia also recently introduced a whole new generation of sophisticated land attack missiles, including Iskander, Kalibr, and the Kh-101. They employ a range of advanced features such as satellite guidance, digital scene mapping, and gas dynamic propulsion, depending on the system.¹⁷⁶ The introduction of these new missiles demonstrates Russia's increasing sophistication in this area. As noted recently by defense expert Nikolai Sokov, "Moscow has reduced the gap [in the area of precision strike] from 10-20 years in the 1990s to perhaps as few as 5-7."¹⁷⁷

Aside from the preceding, however, most other sectors of the industry continue to lag behind the West, in some cases significantly. The shipbuilding sector is

an area of particular weakness. As naval expert Dmitry Gorenburg noted, “Over the last several years, we have seen repeated delays with the construction of new ship types even when the economic situation [in Russia] was much more positive and the ships being built much smaller and simpler than destroyers and aircraft carriers.”¹⁷⁸ The industry’s record in developing submarines has been only slightly better. While it was eventually able to complete development of two new nuclear submarines (*Yasen*-class SSNs [which completed sea trials in March 2016] and *Borei*-class SSBNs), these programs experienced numerous technical problems and prolonged schedule delays.¹⁷⁹

The tank/ground combat sector is yet another area of technological weakness. This sector has been notorious for its low levels of innovation. For years, instead of producing new models, the industry continued to churn out a series of slightly upgraded models.¹⁸⁰ As a result, most fielded Russian combat vehicles now lag significantly behind their Western counterparts.¹⁸¹ Recently, however, there have been signs of improvement, as the sector has begun to roll out a new generation of tanks and armored vehicles, such as the new Armata tank. These systems are still in development, however, so it remains to be seen how much the situation has actually improved.¹⁸² Russia has considerable ground to make up with respect to other key weapons technologies as well, including C4ISR, airborne warning and control systems (AWACs), UAVs, ballistic missile defense, precision guided munitions, and others.

What explains the discrepancy in performance? Various factors come into play. Those sectors that are performing best today, such as aviation, tend to be the same sectors that were most able to sustain themselves through arms sales during the 1990s.¹⁸³ Revenues from

arms sales allowed these firms to survive the deep spending cuts of the 1990s and generate additional money for R&D.¹⁸⁴ For example, Sukhoi was reportedly able to use some of the proceeds from sales of Su-27 aircraft to China to develop the Su-35, which today is one of Russia's best performing systems.¹⁸⁵

Defense enterprises involved in programs deemed strategic by Russia's leaders have also been able to build or maintain relatively high standards for improving technology. For example, firms involved in Russian nuclear weapons programs continued to receive R&D funding throughout the post-Cold War period—first, due to the need to modernize Russia's strategic deterrent and, later, due to the need to increase reliance on nuclear weapons to offset Russia's declining conventional capabilities.¹⁸⁶ Starting in the mid-2000s, development of conventional precision strike weapons likewise became a high priority for Russia's leaders, as such weapons increasingly were seen as an effective substitute for nuclear weapons in warding off aggression.¹⁸⁷ Steady R&D investment for both nuclear and precision strike weapons has elevated the technology level of firms involved in their development.

For those sectors that have lagged behind, however, problems in Russia's military R&D sector are largely to blame. This sector has been plagued for years by significant resource constraints that have diminished its capacity to innovate. These include personnel shortages, aging plants and equipment, and inadequate funding. In addition, the R&D sector continues to suffer from a range of complex structural problems, which have also significantly hindered its technological performance.

The R&D sector's enduring capacity problems can be traced directly back to the 1990s, when sharp cuts

in defense spending led to a major contraction in the sector and a substantial loss of capability. Between 1989 and 1999, Russia's defense budget decreased by nearly a factor of seven.¹⁸⁸ Such deep spending cuts provoked a prolonged crisis in the R&D sector, significantly damaging its capacity for innovation. As one expert stated, "The decline in financing was so pronounced that an orderly restructuring of R&D institutions was impossible."¹⁸⁹

What happened instead was a radical downsizing of the military R&D sector. Lack of funding to pay competitive salaries led to a mass exodus of skilled personnel. Employment in R&D decreased from 1.9 million in 1990 to 872,000 in 1999, including up to 100,000 researchers who left Russia entirely.¹⁹⁰ Funding for plants and equipment was also cut by more than 75 percent between 1990 and 1997, so that by 1995, equipment was on average already 14.1 years old.¹⁹¹ This led to a serious decline in the state of R&D infrastructure.¹⁹² Even worse, a great many R&D firms disappeared altogether, including more than two-thirds of existing design bureaus.¹⁹³ While the Soviet R&D system was admittedly bloated, the magnitude of the cuts made to both procurement and R&D in the 1990s tended toward the opposite extreme.¹⁹⁴

A number of measures were taken in recent years to address the military R&D sector's enduring capacity problems. Most importantly, between 2000 and 2016, Russia's defense R&D budget has grown by almost 20 percent per year, increasing in nominal terms from 14.8 billion rubles to 315 billion rubles.¹⁹⁵ Increased funding has enabled defense R&D firms to compete more effectively for scarce research talent by increasing salaries to 115 percent of the level offered in competing sectors.¹⁹⁶ It has also allowed R&D firms to boost capital

investment.¹⁹⁷ In addition, the Federal Target Program for the defense industry has provided targeted capital investment funds for 500 enterprises involved in high-priority defense programs, including many R&D enterprises.¹⁹⁸

Such measures have only been partially successful in addressing the sector's capacity problems. For one thing, funding increases have been offset to a significant extent by inflation, which has averaged more than 10 percent per year between 2007 and 2015, and by corruption, which has been endemic in military R&D.¹⁹⁹ Recruiting qualified scientists and engineers has also been a major challenge due to an acute shortage of skilled personnel in Russia. As a result, R&D firms have been struggling to hire qualified personnel. Moreover, given the need to replace up to 70 percent of existing plants and equipment, it will take many years to recapitalize the sector at current replacement rates, reportedly around 3-4 percent per year.²⁰⁰

Nevertheless, there is a real sense of progress in military R&D for the first time in many years, as increased spending has clearly had a significant positive effect on the balance sheets of many R&D firms.²⁰¹ Staffing levels at most R&D institutes have been gradually rising as well and the age profile of their workforces has finally started to improve, with average ages falling from 50 to 47 between 2006 and 2010.²⁰² R&D firms are also building new R&D centers for the first time in many years.²⁰³ For many defense enterprises, this has been the first major upgrade to plants and equipment they have received in many years. In addition to funding and capacity problems, the military R&D sector continues to suffer from a number of complex structural problems. These problems affect both the efficiency of its operations as well as its incentives to innovate. For

the most part, they are a legacy of the Soviet era. Thus far, attempts at restructuring have been only partially successful. As a result, the R&D sector still remains unreformed to a significant extent.

One enduring problem for the R&D sector has been the continuing separation of R&D from production. This is a legacy of the Soviet era, when military R&D was carried out by independent research institutes and design bureaus (so-called branch science institutes) that were institutionally segregated from manufacturing enterprises. Within this system, research institutes were responsible primarily for applied research in weapons technology, while design bureaus were responsible for actual weapons development.²⁰⁴ Weapon designs were then passed on to manufacturing enterprises for actual production.²⁰⁵ Thus, the Soviet military R&D system evolved quite differently from that in the United States, where military R&D traditionally has been carried out within large, integrated defense companies who also manufactured the equipment.

There are serious shortcomings with the Russian system, however, which have important implications for R&D. First, the separation of R&D from production leaves R&D firms disconnected from the needs of their customers (i.e., the manufacturing enterprises that produce the equipment and the service branches that use it). Lacking a clear understanding of requirements, R&D firms have been less able to generate innovative solutions.²⁰⁶ Moreover, weak linkages between R&D and production have tended to hinder the diffusion of technology.²⁰⁷ Technology diffusion is a critical factor in promoting further innovation throughout related sectors of the economy.

Another major problem for military R&D has been the high prevalence of state-owned firms that

are poorly structured to operate efficiently under true market conditions. The prevalence of so many firms is another legacy of the Soviet era. Under the Soviet system, defense enterprises were organized under the tenets of a centrally planned economy. Their structural characteristics (i.e., organization, plant and equipment, location, business processes, etc.) were determined without regard to economic opportunity costs or considerations of efficiency.²⁰⁸ These firms were able to survive in the insular Soviet system, but they were poorly suited to operate in an economy in which true market pricing prevails.²⁰⁹

Nevertheless, many R&D firms have managed to survive into the present era without undergoing significant restructuring, despite the fact that many of them actually operate at a loss.²¹⁰ They have managed to survive because of the continuing presence of subsidies and soft budget constraints in the defense sector.²¹¹ Because such enterprises are often considered to be strategic, they have been afforded additional support from the state when necessary, through subsidies or other less transparent means.²¹²

Such practices have clearly had a pernicious effect on R&D, however. For one thing, the costs of sustaining so many poorly structured and inefficient enterprises have substantially driven up the costs of R&D as a whole. Moreover, because R&D firms have been able to sustain themselves through subsidies and other rent-seeking activities, they have had little incentive to modernize or restructure.²¹³ Relieved of the need to compete for new contracts, as well as the need to meet strict budget constraints, such firms have had little incentive to innovate.

In a bid to address the industry's enduring structural problems, the government launched a major

consolidation effort starting in the early 2000s (although this was not the sole reason for this effort).²¹⁴ Over several years, large segments of the defense industry were consolidated and placed under the control of up to 55 vertically integrated, state-owned holding companies.²¹⁵ The consolidation of much of the aviation sector under the United Aircraft Corporation (UAC) is a prime example. In a similar move, in 2007, nearly 350 defense and high-tech companies (including 173 R&D firms) were consolidated and placed under the control of Rostekhnologii (Rostec), a newly formed state corporation.²¹⁶ Rostec's business plan called for selling off poorly performing companies and modernizing the rest.²¹⁷

It is too soon to tell whether the performance of R&D has benefited significantly from the industry consolidation process. Combining R&D institutes and production enterprises under a single roof has likely helped to increase linkages between the two, and they have likely benefited from greater coordination at the top. The formation of holding companies has also allowed for a certain amount of restructuring to take place within the R&D sector. For example, following the formation of UAC, several previously independent design bureaus were merged to create three new integrated R&D centers, each having a distinct area of concentration (combat, military-transport, and civil aviation).²¹⁸ Similarly, in the case of missile maker Almaz-Antei, operations of five design and production enterprises were combined to create a new regional technology and production center in St. Petersburg. In this case, R&D and production operations were both redesigned and rationalized, while new structures were created for scientific and research activities.²¹⁹

However, there are indications that the benefits of consolidation have not been fully realized as of yet. For the most part, companies incorporated within each holding company continue to operate as separate entities. For example, within UAC, Sukhoi, Irkut, Tupolev, and Ilyushin all continue to operate as distinct businesses.²²⁰ Moreover, in some cases, it appears that restructuring was not a major factor in the decision to pursue consolidation. In the case of Rostec, for example, the primary motive seems to have been firm preservation, rather than restructuring, as proceeds from better performing firms were reportedly used to shore up poor performers.²²¹

Despite its enduring problems, the defense sector still remains Russia's best hope for narrowing its military technology gap with the West. The defense industry remains by far the most advanced and the most innovative sector of Russia's economy, and its principal source of advanced military S&T. Moreover, there are signs that the defense sector has been improving its performance as of late. According to Julian Cooper, growth in military production within the defense sector increased from 6 percent to 20 percent between 2011 and 2014.²²² If Russia can maintain momentum, we should expect to see continued progress in terms of the quality and technological sophistication of Russian weapons systems. While many sectors are likely to lag compared to the West for some time to come, absent a vigorous response by the United States and its allies to maintain their technological lead, we can expect Russia to narrow the gap further in key weapons areas over the next several years.

CONCLUSION

Thus, in the short run at least, Russia will have to rely primarily on its defense sector to deliver the kinds of advanced military-related S&T needed for modernization of its armed forces. Given limitations in its other R&D sectors, the defense sector remains Russia's only real option for the time being. To a certain extent, this approach is likely to be fruitful. As discussed above, the defense sector has been delivering higher quality weaponry and narrowing the military technology gap in key areas because of recent reforms, combined with the positive effects of large-scale investments in military R&D and procurement. Sustaining high spending levels on defense modernization will be the key for consolidating and extending these recent gains.

However, relying primarily on the defense sector for delivery of advanced weaponry is only likely to get Russia so far in terms of military modernization. Even with modest contributions from its other R&D sectors, Russia's defense sector is unlikely to deliver sufficient military-related S&T to narrow the military technology gap with the West in all of the areas desired by Russia's leadership. Despite recent progress, the defense industry continues to be plagued by enduring structural problems and capacity constraints of its own, and these will likely impede innovation in many areas. As a result, progress in advancing its military technology is likely to be spotty, with gains in some areas matched by continuing struggles in others. Moreover, in some areas, such as C4ISR and defense electronics, Russia's defense industry lags too far behind the West to catch up rapidly of its own accord. Nor is the defense industry likely by itself to be able to sustain its gains in the face of a concerted effort by the West to restore

its technological supremacy in areas where Russia has succeeded in narrowing the gap.

Ultimately, therefore, Russia's armed forces will need substantially greater contributions from its other R&D sectors if it hopes to realize more of its military modernization ambitions. This should not be surprising because a balanced and integrated national innovation system has been the key to high technological performance in the most militarily advanced countries in the world. In the United States, for example, each R&D sector (e.g., education, private industry, and national laboratories) fulfills its assigned functions efficiently and interacts effectively with the other R&D sectors so that the system as a whole is delivering high levels of innovation. The U.S. military has benefited enormously from the combined efforts of these various R&D performers.

By this standard, it is clear from the previous review that Russia's national innovation system falls well short of the mark, as its nondefense R&D sectors continue to suffer from serious imbalances and deficiencies. Moreover, because of the persistent structural and capacity problems previously described, there is little real prospect for improvement in these other R&D sectors either, at least in the short run. Until recently, Russia has been able to make up for some of its S&T deficiencies by importing foreign technology. Since the advent of the Ukraine crisis, however, Russia's access to Western and Ukrainian military technology has been substantially foreclosed.

Russia's leaders are well aware of the need to improve performance in the other R&D sectors of its economy. Since the 2008 financial crisis, Putin and Medvedev have frequently spoken of the need for transforming Russia's economy from one based primarily

on resource extraction to one based more on innovation, centered on the production of high-tech products and services. As Putin put it, to achieve success, Russia would need to create “a national innovative system based on all of the different state and private institutions supporting innovation.”²²³

However, while Medvedev focused on modernization of the civilian economy as a means to achieve higher growth (and ultimately military modernization), Putin has placed priority on first transforming the defense sector itself, and then harnessing it as a means for achieving modernization of the rest of the economy. Thus, by investing heavily in defense and then using the resulting technology to modernize civilian R&D and production, Putin hopes to achieve both rearmament and economic modernization. By doing so, he is hoping to avoid or at least postpone making the kinds of painful and politically risky structural reforms needed to improve R&D and production in the civilian sector.

While it is too soon to tell whether such a defense-centric approach will work for Russia this time around, it should be noted that such an approach proved less than successful during the Soviet era. While the Soviets were able to maintain relative parity with the West in many areas of weapons technology, they remained well behind the West in many others, and this gap only grew wider with the advent of the information technology revolution. Meanwhile, the Soviet civilian economy continued to exhibit relatively low levels of innovation, which hindered productivity. Ultimately, the failure of the Soviet civilian economy to deliver sustained economic growth severely undercut the Soviet Union’s ability to sustain its military modernization programs. Thus, in following a similar path,

Putin is betting that Russia can somehow avoid repeating the same mistakes that doomed military modernization during the Soviet era.

ENDNOTES - CHAPTER 4

1. Julian Cooper, "Russia's State Armament Programme to 2020: A Quantitative Assessment of Implementation 2011-2015," FOI Report FOI-R-4239-SE, Stockholm, Sweden: Swedish Defense Research Agency, March 2016, p. 14, available from https://www.researchgate.net/profile/Julian_Cooper2/publication/299338379_Russia%27s_state_armament_programme_to_2020_a_quantitative_assessment_of_implementation_2011-2015_FOI_Report/links/56f11db508aecd0f31f235d/Russias-state-armament-programme-to-2020-a-quantitative-assessment-of-implementation-2011-2015-FOI-Report.pdf.

2. Ibid., p. 4.

3. Dmitry Adamsky, "Defense Innovation in Russia: The Current State and Prospects for Revival," Institute on Global Conflict and Cooperation (IGCC) Defense Innovation Briefs, No. 5, San Diego: University of California, January 2014, p. 3.

4. Ibid.

5. Ibid., p. 4.

6. Ibid., p. 5.

7. Dave Majumdar, "Is Russia's Military Really Punching Above its Weight?" *The Buzz*, blog of *The National Interest*, January 26, 2016, available from <http://nationalinterest.org/blog/the-buzz/russias-military-really-punching-above-its-weight-15025>.

8. Andrea Shalal, "Pentagon Official Urges NATO to Focus on Innovative Weapons," Reuters, January 28, 2015, available from <http://www.reuters.com/article/us-pentagon-arms-idUSKBN0L205E20150129>.

9. "National Innovation Systems," Paris, France: Organization for Economic Cooperation and Development, 1997, p. 9.

10. *OECD Reviews of Innovation Policy: Russian Federation 2011*, Paris, France: Organization for Economic Cooperation and Development Publishing, 2011, p. 161, hereafter *OECD Innovation 2011*, available from <http://dx.doi.org/10.1787/9789264113138-en>.

11. *OECD Innovation 2011*, p. 166.

12. Jonathan Adams and Christopher King, *Global Research Report: Russia*, Leeds, UK: Thomson Reuters, 2010, p. 6.

13. *Ibid.*, p. 5.

14. Anne-Wil Harzing and Axèle Giroud, "The Competitive Advantage of Nations: An Application To Academia," *Journal of Informetrics*, Vol. 8, No. 1, 2014, p. 32.

15. *OECD Main Science and Technology Indicators*, Paris, France: Organization for Economic Cooperation and Development Publishing, available from <http://www.oecd.org/sti/msti.htm>.

16. Irina Dezhina, "New Science Policy Measures in Russia: Controversial Observations," *Russian Analytical Digest*, Vol. 155, No. 23, September 2014, p. 12.

17. Irina Dezhina, "Russia's Academy of Sciences' Reform: Cause and Consequences for Russian Science," *Russie.Nei. Visions*, No. 77, Paris, France: Ifri, Russia/NIS Center, May 2014, p. 8, available from <https://www.ifri.org/en/publications/enotes/russieneivisions/russias-academy-sciences-reform-causes-and-consequences-russian>.

18. Vitalii G. Gorokhov, "Debates About the Reform of the Russian Academy of Sciences," *Russian Education and Society*, Vol. 56, No. 11, November 2014, p. 80.

19. "Russian Roulette: Reforms without Consultation will Destroy the Russian Academy of Sciences," *Nature*, July 3, 2013, available from <http://www.nature.com/news/russian-roulette-1.13315>.

20. Loren Graham, *Lonely Ideas: Can Russia Compete?* Cambridge, MA: MIT Press, 2013, p. 139.

21. Dezhina, "Russia's Academy of Sciences' Reform," p. 12.

22. Dezhina, "New Science Policy," p. 13.
23. Ibid.
24. As of 2014, the average age of a RAS scientist was 51.9 years. As of 2012, 34.3 percent of them were over 60. See Dezhina, "New Science Policy," pp. 12-13.
25. Ibid., p. 12. As of 2014, funding per RAS scientist was just one-half that for German scientists at the Max Planck Society.
26. Ibid., p. 11; Dezhina, "Russia's Academy of Sciences' Reform," pp. 10, 14, 20.
27. Fiona Clark, "Reforming the Russian Academy of Sciences," *The Lancet*, Vol. 382, Iss. 9902, October 24, 2013, p. 1392, available from [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(13\)62142-X/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(13)62142-X/fulltext); Dezhina, "Russia's Academy of Sciences' Reform," p. 13.
28. Ibid.
29. Leonid Gokhberg and Tatiana Kuznetsova, "Russian Federation," *UNESCO Science Report, Towards 2030*, Paris, France: United Nations Educational, Scientific and Cultural Organization (UNESCO), 2015, p. 356.
30. Vladimir Pokrovsky, "Russian Researchers Protest Government Reforms," *Science*, June 8, 2015, available from <http://www.sciencemag.org/news/2015/06/russian-researchers-protest-government-reforms>.
31. Annabel McGilvray, "World's Oldest Science Network Faces Uneasy Future," *Nature Index*, May 6, 2016, available from <https://www.natureindex.com/news-blog/worlds-oldest-science-network-faces-uneasy-future>; *Tendencii i Perspektivy (Russian Economy in 2015: Trends and Prospects)*, No. 37, Moscow, Russia: The Gaidar Institute, p. 350.
32. Pokrovsky.
33. Dezhina, "Russia's Academy of Sciences' Reform," pp. 26-27.

34. McGilvray.

35. Anna Smolentseva, "Globalization and the Research Mission of Universities in Russia," in Simon Schwarzman, Rómulo Pinheiro, and Pundy Pillay, eds., *Higher Education in the BRICS Countries*, Dordrecht, Netherlands: Springer, 2015, p. 412.

36. Dezhina, "Russia's Academy of Sciences' Reform," pp. 8, 15.

37. "Voyenno-Promyshlennaya Konferentsiya, 'Aktual'nyye Voprosy rRzvitiya Oboronno-Promyshlennogo Kompleksa Rossiyskoy Federatsii'" ("Military-Industrial Conference, 'Contemporary questions for the development of the military-industrial complex of the Russian Federation'"), *Arsenal-Otechestva*, November 19, 2013, available from <http://arsenal-otechestva.ru/article/192-voenno-promyshlennaya-konferentsiya>.

38. Lyudmila Pankova, "The Dynamics of Modernization of the Russian Armed Forces," in *Russia: Arms Control, Disarmament and International Security (MEMO Supplement to the Russian Edition of the SIPRI Yearbook 2014)*, Moscow, Russia: Stockholm International Peace Research Institute, 2015, p. 155.

39. Isak Froumin and Yaroslav Kouzminov, "Supply and Demand Patterns in Russian Higher Education," in Simon Schwarzman, Rómulo Pinheiro, and Pundy Pillay, eds., *Higher Education in the BRICS Countries*, Dordrecht, Netherlands: Springer, 2015, p. 99.

40. Smolentseva, p. 402.

41. Irina Dezhina, "Developing Research in Russian Universities," *Russie.Nei.Visions*, No. 57, Paris, France: Ifri, Russia/NIS Center, February 2011, p. 6, available from <https://www.ifri.org/en/publications/enotes/russieneivisions/developing-research-russian-universities>.

42. Smolentseva, p. 401.

43. *Ibid.*

44. Ivan Sterligov, "Leading Russian Universities: A Scientometric Perspective," *Higher Education in Russia and Beyond*, Spring 2014, p. 11, available from <https://herb.hse.ru/en/2014--01.html>.

45. Graham, pp. 137-139.

46. *Ibid.*, p. 137.

47. *Ibid.*

48. Loren R. Graham and Irina Dezhina, *Science in the New Russia: Crisis, Aid, Reform*, Bloomington, IN: Indiana University Press, 2008, p. 10.

49. Dezhina, "Russia's Academy of Sciences' Reform," p. 10.

50. Smolentseva, p. 401.

51. *Ibid.*, p. 409.

52. Nikolay Skvortsov, Olga Moskaleva, and Julia Dmitrieva, "World-Class Universities—Experience and Practices of Russian Universities," in Qi Wang, Ying Cheng, and Nian Cai Liu, eds., *Building World-Class Universities*, Rotterdam, The Netherlands: Sense Publishers, 2013, p. 58.

53. Dezhina, "Developing Research," p. 14; John Aubrey Douglass, *The New Flagship University*, London, UK: Palgrave MacMillan, 2016, p. 183.

54. Dezhina, "New Science Policy," p. 12.

55. Gokhberg and Kuznetsova, p. 351.

56. Skvortsov, Moskaleva, and Dmitrieva, p. 63.

57. Isak Froumin and Alexander Povalko, "Lessons from the National Excellence Initiatives in Russia," presentation by Deputy Minister, Ministry of Education and Science, Russia, November 4, 2013, available from <http://www.shanghairanking.com/wcu/wcu5.html>.

58. Dezhina, "Russia's Academy of Sciences' Reform," p. 8.

59. Smolentseva, p. 413.
60. Gokhberg and Kuznetsova, p. 351.
61. Dezhina, "Developing Research," pp. 7-8.
62. "World University Rankings 2015-2016," Times Higher Education World University Rankings, 2016, available from https://www.timeshighereducation.com/world-university-rankings/2016/world-ranking#!/page/0/length/25/sort_by/rank_label/sort_order/asc/cols/rank_only.
63. Gokhberg and Kuznetsova, p. 351.
64. Ibid.
65. Smolentseva, p. 419.
66. Harley Balzer, "Russian Higher Education to 2020," *Russian Analytical Digest*, No. 97, May 30, 2011, pp. 3-4, available from <http://www.css.ethz.ch/en/services/digital-library/publications/publication.html/129856>.
67. Ibid.
68. Richard Weitz, "Policy Dynamics: Putin's Defense Procurement Challenge," *Second Line of Defense*, March 13, 2012, available from <https://sldinfo.com/2012/03/putins-defense-procurement-challenge/>.
69. Ibid.
70. Valerie A. Loginova and Elena V. Murashova, "Research of Modern Forms of Communication between Business and Universities in Russia," *The Macrotheme Review*, Vol. 3, No. 2, Spring 2014, p. 92.
71. Eugene Gerden, "Russia to ramp up spending on military science," *Chemistry World*, September 2, 2015, available from <http://www.rsc.org/chemistryworld/2015/09/russian-government-spending-military-defence-science-research>.
72. Organization for Economic Cooperation and Development (OECD), "Enterprises by Size," in OECD, *Entrepreneurship*

at a Glance 2015, Paris, France: Organization for Economic Cooperation and Development Publishing, 2015, available from http://dx.doi.org/10.1787/entrepreneur_aag-2015-7-en.

73. “Voyenno-promyshlennaya konferentsiya” (“Military-Industrial Conference”).

74. *OECD Economic Surveys: Russian Federation 2013*, Paris, France: Organization for Economic Cooperation and Development Publishing, 2014, p. 9, available from http://dx.doi.org/10.1787/eco_surveys-rus-2013-en.

75. Keith Crane and Artur Usanov, “Role of High-Technology Industries,” in Anders Åslund, Sergei Guriev, and Andrew Kuchins, eds., *Russia after the Global Economic Crisis*, Washington, DC: Peterson Institute for International Economics, 2010, p. 99. Like Crane and Usanov, the present chapter adopts the OECD definition of high-technology products to include those produced by certain specified industries, including aerospace, computers and office equipment, electronics and telecommunications, pharmaceuticals, scientific instruments, electrical machinery, chemicals, other machinery, and military armaments. See Thomas Hatzichronoglou, “Revision of the High-Technology Sector and Product Classification,” OECD Science, Technology and Industry Working Papers, No. 1997/02, Paris, France: Organization for Economic Cooperation and Development Publishing, January 1, 1997, available from <http://dx.doi.org/10.1787/134337307632>.

76. Crane and Usanov, p. 107.

77. *Ibid.*, p. 108.

78. Pavel Podvig, “History of Highly Enriched Uranium Production in Russia,” *Science & Global Security*, Vol. 19, No. 1, 2011, p. 47. Podvig identifies similar use for such facilities during the Soviet era. It should be noted that Russia has reportedly not produced any weapons-grade highly enriched uranium since 1988 because it still maintains large stockpiles from prior periods. *Ibid.*, p. 46.

79. Crane and Usanov, p. 107.

80. Pavel Podvig, "Consolidating Fissile Materials in Russia's Nuclear Complex," Research Report No. 7, Princeton, NJ: International Panel on Fissile Materials, May 2009, available from <http://www.ipfmlibrary.org/rr07.pdf>.

81. Crane and Usanov, p. 111.

82. Forrest McCartney, *National Security Space Launch Report*, Vol. 503, Santa Monica, CA: RAND Corporation, 2006, p. 46; Stephen Clark, "RD-181 engines prepared for shipment to U.S.," *Spaceflight Now*, June 1, 2015, available from <https://spaceflightnow.com/2015/06/01/rd-181-engines-prepared-for-shipment-to-u-s/>.

83. Brian Harvey, *The Rebirth of the Russian Space Program: 50 Years after Sputnik*, *New Frontiers*, Chichester, UK: Springer Science & Business Media, 2007, pp. 77-103.

84. *Ibid.*, p. 267.

85. Gokhberg and Kuznetsova, p. 357.

86. Crane and Usanov, p. 97.

87. Valentin Makarov, ed., *2015 Export of Russian Software Development Industry: 12th Annual Survey*, St. Petersburg, Russia: RUSSOFT Association, 2015, p. 41. Note that RUSSOFT estimates total Russian software revenues at \$12 billion. I have cited a more conservative figure based on IDC sources cited by RUSSOFT. RUSSOFT's figures may also include revenue from hardware sales.

88. *Ibid.*, p. 45. Note that RUSSOFT estimates total exports to be higher as well, at \$6 billion total. I have cited the lower numbers provided by the Russian Central Bank. *Ibid.*, p. 41.

89. *Ibid.*, p. 29.

90. *Ibid.*, p. 49.

91. The World Bank, *Russian Federation—Export diversification through competition and innovation: A Policy Agenda*, Washington DC: The World Bank, 2013, p. 118, available from <http://documents.worldbank.org/curated/en/2013/04/18023843/russian-federation-export-diversification-through-competition-innovation-policy-agenda>.

92. Ibid.

93. See for example “Conference on IT in the Service of the Defense Industry of Russia Held in Innopolis,” IT OPK, June 3, 2015.

94. See “Results of the 4th day of the conference,” IT OPK, May 29, 2015.

95. “Tsfirovye vojny XXI veka” (“Digital War of the 21st Century”), *Russian Power*, October 28, 2014, available from <http://rusila.su/2014/10/28/tsfirovye-vojny-xxi-veka/>.

96. Mariette DiChristina, “Big Plans for Nanotechnology in Russia,” Observations, blog of *Scientific American*, May 30, 2011, available from <http://blogs.scientificamerican.com/observations/big-plans-for-nanotechnology-in-russia/>.

97. Fredrik Westerlund, *Russian Nanotechnology R&D: Thinking Big about Small Scale Science*, Stockholm, Sweden: Swedish Defence Research Agency, June 2011, p. 13, available from https://www.researchgate.net/publication/241280138_Russian_Nanotechnology_RD_Thinking_big_about_small_scale_science.

98. Richard Connolly, “State Industrial Policy in Russia: The Nanotechnology Industry,” *Post-Soviet Affairs*, Vol. 29, No. 1, 2013, p. 3.

99. Ibid., p. 2, fn. 2.

100. “What is Nanotechnology?” National Nanotechnology Initiative, n.d., available from <http://www.nano.gov/nanotech-101/what/definition>; Westerlund, p. 24.

101. Westerlund, p. 32.

102. “Russian military uses nanotechnology to build world’s most powerful non-nuclear bomb,” Nanowerk, September 11, 2007, available from <http://www.nanowerk.com/news/newsid=2546.php>.

103. David Crane, “Russian Nano-Armor Coming in 2015 for Future Soldier ‘Warrior Suit’, and Russian Spetsnaz (Military Special Forces) Already Running Improved 6B43

Composite Hard Armor Plates, New Plate Carriers and Combat Helmets, AK Rifle/Carbines, GM-94 Grenade Launchers and other Tactical Gear in Crimea, Ukraine,” *Defense Review*, April 23, 2014, available from <http://www.defensereview.com/russian-nano-armor-coming-in-2015-and-russian-spetsnaz-military-special-forces-already-running-improved-6b43-composite-hard-armor-plates-new-plate-carriers-ak-riflecarbines-gm-94-grenade-launch/>.

104. Connolly, p. 16; Westerlund, pp. 55, 112.

105. Marcel P. Timmer and Ilya B. Voskoboynikov, “Is Mining Fuelling Long-Run Growth in Russia? Industry Productivity Growth Trends since 1995,” *Review of Income and Wealth*, Vol. 60, No. S2, November 2014, p. S-400.

106. The World Bank, *Russian Federation*, p. x.

107. Ville Kaitila, “GDP Growth in Russia: Different Capital Stock Series and the Terms of Trade,” ETLA Working Paper No. 28, Helsinki: The Research Institute of the Finnish Economy, February 25, 2015, p. 9, citing data from the United Nations Conference on Trade and Development.

108. *Ibid.*

109. The World Bank, *Russia Economic Report: The Long Journey to Recovery*, Report No. 35, Moscow, Russia: The World Bank in the Russian Federation, April 4, 2016, p. 53.

110. *Ibid.*

111. *Ibid.*, p. 56.

112. Gokhberg and Kuznetsova, p. 345.

113. Leonid Gokhberg and Vitaly Roud, *The Russian Federation: a New Innovation Policy for Sustainable Growth / Global Innovation Index*, Fontainebleau, France: INSEAD, 2012, p. 122.

114. *Ibid.*, pp. 124-125; *OECD Innovation 2011*, p. 145.

115. *OECD Innovation 2011*, p. 145.

116. Russia's largest 100 firms accounted for nearly 60 percent of Russia's total gross domestic product (GDP) in 2007. Kari Liuhto and Peeter Vahtra, "Who governs the Russian economy? A cross-section of Russia's largest corporations," *Electronic Publications of Pan-European Institute*, No. 12/2009, Finland: Turku School of Economics, Pan-European Institute, 2009, p. 3, available from <https://www.utu.fi/en/units/tse/units/PEI/reports/Pages/2009.aspx>.

117. Paul Conway, Tatiana Lysenko, and Geoff Barnard, "Product Market Regulation in Russia," OECD Economics Department Working Papers, No. 742, Paris, France: Organization for Economic Cooperation and Development Publishing, December 15, 2009, p. 8, available from <http://dx.doi.org/10.1787/218750034678>.

118. OECD, *Russian Federation: Key Issues and Policies*, OECD Studies on SMEs and Entrepreneurship, Paris, France: Organization for Economic Cooperation and Development Publishing, October 16, 2015, p. 60, available from <http://dx.doi.org/10.1787/9789264232907-en>.

119. *Ibid.*, p. 70.

120. *Ibid.*, pp. 73, 77-79.

121. Natalia Kalinina and Vadim Kozyulin, "Russia's Defense Industry: Feet of Clay," *Security Index*, Vol. 16, No. 1, 2010, p. 43.

122. Dmitri Trenin, "Russia and Global Security Norms," *The Washington Quarterly*, Vol. 27, No. 2, Spring 2004, p. 71.

123. Konstantin Sorokin, "Russia's 'New Look' Arms Sales Strategy," *Arms Control Today*, Vol. 23, No. 8, October 1993, p. 9.

124. "Importozameshcheniye Kak Dvigatel' Ekonomiki" ("Import substitution as a driver of the economy"), *Putin Today*, March 26, 2016, available from <http://www.putin-today.ru/archives/22808>.

125. Charles Forrester, "Analysis: The Impact of Europe's Sanctions on Russia," *Jane's Defence Weekly*, August 1, 2014.

126. Alexander Zudin, "Russian Ministers Admit Arms Industry Hit by Sanctions," *Jane's Defence Weekly*, July 20, 2015;

Pavel Felgenhauer, "While Increasingly Anti-Western, Russia Needs Foreign Military Technology," *Eurasia Daily Monitor*, Vol. 9, Iss. 185, October 11, 2012, available from <https://jamestown.org/program/while-increasingly-anti-western-russia-needs-foreign-military-technology/>.

127. "The cruel sea," *The Economist*, February 11, 2010, available from <http://www.economist.com/node/15514914>.

128. Forrester, "Analysis"; Yevgeny Bendersky, "Russia Buys French Assault Carrier," *Real Clear World*, August 30, 2009, available from http://www.realclearworld.com/blog/2009/08/more_on_russian_purchase_of_th.html.

129. Susanne Oxenstierna and Per Olsson, *The economic sanctions against Russia: Impact and prospect of success*, FOI Report FOIR--4097--SE, Stockholm, Sweden: Swedish Defence Research Agency, September 2015, p. 54, available from http://www.academia.edu/15298128/The_economic_sanctions_against_Russia._Impact_and_prospects_of_success.

130. Nikolai Novichkov, "Russia Hoping To Export Three Sanction-Hit Admiral Grigorovich-Class Frigates," *Jane's Navy International*, October 15, 2015.

131. Vladimir Voronov, "Importozameshcheniye Dlya Rogozina" ("Import substitution for Rogozin"), January 10, 2016, available from <http://www.svoboda.org/content/article/27477140.html>.

132. Gareth Jennings, "First Production-Standard Il-112V Transport Aircraft to be Built in 2017," *Jane's Defence Weekly*, October 8, 2015.

133. Charles Forrester, "EU, US Impose New Sanctions, Embargoes On Russia," *Jane's Defence Weekly*, July 30, 2014; Charles Forrester, "Japan Expands Sanctions Against Russia," *Jane's Defence Weekly*, September 24, 2014; "Australia Expands Sanctions on Russia Over Ukraine," *The Moscow Times*, March 31, 2015, available from <http://www.themoscowtimes.com/business/business/article/australia-expands-sanctions-on-russia-over-ukraine/518296.html>; Forrester, "Analysis."

134. Matthew Smith and Peter Dunai, "Analysis: The Impact of Europe's Sanctions on Russia," *Jane's Defence Weekly*, August 1, 2014; Ryan Maass, "France canceled Mistral sale to Russia under NATO pressure," UPI, October 2, 2015, available from http://www.upi.com/Business_News/Security-Industry/2015/10/02/France-canceled-Mistral-sale-to-Russia-under-NATO-pressure/4811443808996/.

135. Zudin.

136. Yury Koptev, Victor Storonin, Alexander Rakhmanov, Sergei Dovguchits, Alexander Larionov, Andrey Pronko, Sergey Grinyaev, Anatoly Sitnov, and Oleg Falichev, "Rossiya Sdelayet Sama - Chast' 1" ("Russia will do it itself - Part I"), *Military-Industrial Courier*, July 14, 2014, available from <http://www.vpk-news.ru/articles/21043>.

137. Susanne Oxenstierna and Fredrik Westerlund, "Arms Procurement and the Russian Defense Industry: Challenges Up to 2020," *Journal of Slavic Military Studies*, Vol. 26, No. 1, February 2013, p. 16.

138. Ibid.

139. Voronov, "Importozameshcheniye Dlya Rogozina" ("Import substitution for Rogozin").

140. Ibid.

141. Julian Cooper, "How Sanctions Will Hit Russia's Rearmament Plans," Chatham House, The Royal Institute of International Affairs, August 13, 2014, available from <https://www.chathamhouse.org/expert/comment/how-sanctions-will-hit-russias-rearmament-plans>.

142. Zudin.

143. Peter Dunai, "Russian Naval Production 'Idled,' Admits Rogozin," *Jane's Defence Weekly*, June 3, 2015.

144. Vera Pyzhyanova, "Svoye Imet' Nado" ("His Need to be"), Expert Online (Russia), September 22, 2014, available from <http://expert.ru/ural/2014/39/svoe-imet-nado/>.

145. Zudin.

146. Ibid.

147. Charles Forrester, "RAE 2015: Russian Industry, Government Bullish over Sanctions," *Jane's Defence Weekly*, November 9, 2015.

148. Vladimir Voronov, "Rossiyskim Vertoletam Bez Ukrainy Nikak" ("No way for Russian helicopters without Ukraine"), *Svoboda*, April 4, 2014, available from <http://www.svoboda.org/content/article/25320203.html>; Vladimir Voronov, "'Sevastopol' - Rossiyskiy, 'Varyag' - Kitayskiy" ("Sevastopol' is Russian, 'Varyag' is Chinese"), *Svoboda*, April 30, 2014, available from <http://www.svoboda.org/content/article/25368574.html>; Reuben F. Johnson, "Industry Briefing: Ukraine's and Russia's Defence Industrial Base," *Jane's Defence Weekly*, August 1, 2014.

149. Voronov, "'Sevastopol' - Rossiyskiy, 'Varyag' - Kitayskiy" ("Sevastopol' is Russian, 'Varyag' is Chinese").

150. Voronov, "Rossiyskim Vertoletam Bez Ukrainy Nikak" ("No way for Russian helicopters without Ukraine").

151. Voronov, "Importozameshcheniye Dlya Rogozina" ("Import substitution for Rogozin").

152. "Yedinyy Den' Priyomki Voyennoy Produktsii" ("Unified Military Goods Commissioning Day"), kremlin.ru, July 16, 2015, available from <http://kremlin.ru/events/president/news/50005>.

153. Ibid.

154. Voronov, "Importozameshcheniye dlya Rogozina" ("Import Substitution for Rogozin").

155. Charles Forrester, "KRET Targets Import Substitution By 2017, Begins Work on Arctic Systems," *Jane's Defence Weekly*, July 8, 2015.

156. Pyzhyanova.

157. "Importozameshcheniye Kak Dvigatel' Ekonomiki" ("Import substitution as a driver of the economy").

158. "Rogozin: Importozameshcheniye Komponentov VPK Zavershitsya na 90 percent v 2018 Godu" ("Rogozin: Import Substitution of Military Industrial Complex Components 90 Percent Completed in 2018"), *Gazeta.Ru*, August 11, 2015, available from http://www.gazeta.ru/business/news/2015/08/11/n_7453253.shtml.

159. Oleg Falichev and Boris Obnosov, "Storm of Sanctions," *Military-Industrial Courier*, June 9, 2015, available from <http://www.vpk-news.ru/articles/25579>.

160. Koptev, Storonin, Rakhmanov, Dovguchits, Larionov, Pronko, Grinyaev, Sitnov, and Falichev; especially see the statement of Sergey Dovguchits in this compendium.

161. Zudin.

162. Harley Balzer, "Will Russia Waste Another Crisis?" in Richard Sakwa, Mark Galeotti, and Harley Balzer, *Putin's Third Term: Assessments Amid Crisis*, Washington, DC: Center on Global Interests, March 2015, p. 40.

163. Anastasia Novak, "Ekspertiza: Stanet li Perevooru-zheniye k Klyuchom k Ekonomicheskomu Rostu" ("Analysis: Will rearmament be the key to economic growth?"), *polit.ru*, October 8, 2014, available from <http://polit.ru/article/2014/10/08/industry/>.

164. "Voyenno-Promyshlennaya Konferentsiya" ("Military-Industrial Conference").

165. Roger Roffey, "Russian Science and Technology is Still Having Problems – Implications for Defense Research," *Journal of Slavic Military Studies*, Vol. 26, No. 2, 2013, p. 182.

166. Tor Bukkvoll, *The Russian Defence Industry: Status, Reforms and Prospects*, Oslo, Norway: Norwegian Defence Research Establishment, 2013, p. 45.

167. Olga B. Koshovets, "Financial Performance and Technological Modernization of Russian Hi-Technology Complex and Their Role To Boost Economic Growth," *Publications in International Scientific Publications: Economy & Business Journal*, Vol. 8, No. 1, 2014, pp. 633-634.

168. Ibid.

169. Carlo Kopp, "Assessing Russian Fighter Technology," *Air Power Australia*, Analysis 2008-04, June 26, 2008, updated January 27, 2014, available from <http://www.ausairpower.net/APA-2008-04.html>; Carlo Kopp, "Russian Fighters - Capability Assessment," *Defence Today*, January/February 2008, p. 28; Dave Majumdar, "Take Note, Turkey: Russia's New Su-35S Arrives in Syria," *The Buzz*, blog of *The National Interest*, February 1, 2016, available from <http://nationalinterest.org/blog/take-note-turkey-russias-new-su-35s-arrives-syria-15079>.

170. Robert Beckhusen, "Russia's Stealth Fighter Is in Serious Trouble: The Kremlin cuts back on T-50s," *War is Boring*, April 5, 2015, available from <https://medium.com/war-is-boring/russia-s-stealth-fighter-is-in-serious-trouble-24ac3ef85227>; Robert Beckhusen, "Russia's Stealth Fighter Is in Serious Trouble," *Real Clear Defense*, April 6, 2015, available from https://www.realcleardefense.com/articles/2015/04/06/russias_stealth_fighter_is_in_serious_trouble_107848-full.html; Dave Majumdar, "Warning: Turbulence Ahead for the Russia-India Stealth Fighter," *The Buzz*, blog of *The National Interest*, December 28, 2015, available from <http://nationalinterest.org/blog/the-buzz/warning-turbulence-ahead-the-russia-india-stealth-fighter-14754>; Jeremy Bender, "Russia's newest fighter jet is 5th-generation 'in name only'," *Business Insider*, February 24, 2016.

171. Kopp, "Assessing Russian Fighter Technology."

172. John A. Tirpak, "The Double-Digit SAMs," *Air Force Magazine*, June 2001, available from <http://www.airforcemag.com/MagazineArchive/Pages/2001/June%202001/0601sams.aspx>.

173. Paul N. Schwartz, "Russia Announces Sale of S-400 to China," *The Post-Soviet Post*, blog of Center for Strategic and International Studies, June 30, 2014, available from <https://www.csis.org/blogs/post-soviet-post/russia-announces-sale-s-400-china>.

174. "US 'concerned' over deployment of Russian missile system," *Press TV*, November 26, 2015, available from <http://217.218.67.231/Detail/2015/11/26/439182/US-military-S400-deployment>.

175. Dennis M. Gormley, Andrew S. Erickson, and Jingdong Yuan, *A Low-Visibility Force Multiplier: Assessing China's Cruise Missile Ambitions*, Washington, DC: National Defense University, Institute for National Strategic Studies, 2014, p. xviii; Carlo Kopp, "The Impact of Russian High Technology Weapons: Transforming the Strategic Balance in Asia," *Air Power Australia*, Analysis 2008-09, December 12, 2008, updated January 27, 2014, available from <http://www.ousairpower.net/APA-2008-09.html>.

176. Mikhail Barabanov, "Iskander the Great," *Moscow Defense Brief*, Vol. 4, No. 14, 2008, p. 3; "Operativno-Takticheskiy Raketnyy Kompleks 9K720 'Iskander'" ("Operational-Tactical Missile System 9K720 'Iskander'"), *Missile Technology*, n.d., available from <http://rbase.new-factoria.ru/missile/wobb/fiscander/fiscander.shtml>; Richard Scott and Lee Willett, "Long Rangers: SLCMs Still Add Reach and Strategic Impact," *Jane's Navy International*, April 21, 2016; David Isby, "New Russian ALCM Details," *Jane's Missiles and Rockets*, September 28, 2012.

177. Nikolai Sokov, "Russian Efforts to Acquire Precision Conventional Strike and Defense Capability: Implications for Conventional Arms Control in Europe," Heinrich Böll Stiftung, November 20, 2013, available from <https://www.boell.de/en/2013/12/20/russian-efforts-acquire-precision-conventional-strike-and-defense-capability-implications>.

178. Dmitry Gorenburg, "Russian naval shipbuilding plans: Rebuilding a blue water navy," *Russian Military Reform*, January 23, 2015, available from <https://russiamil.wordpress.com/2015/01/23/russian-naval-shipbuilding-plans-rebuilding-a-blue-water-navy/>.

179. Dmitry Gorenburg, "A New Push for Nuclear Submarine Development," *Russian Military Reform*, March 6, 2012, available from <https://russiamil.wordpress.com/2012/03/06/a-new-push-for-nuclear-submarine-development/>; Christopher P. Cavas, "Will Russia's Sub-Building Boom Matter?" *Defense News*, January 24, 2015, available from <https://www.defensenews.com/naval/2015/01/24/will-russia-s-sub-building-boom-matter/>.

180. Nicholas de Larrinaga, "Return of the Bear: Russian Ground Forces Modernization," *Jane's Defence Weekly*, March 8, 2016.

181. Ibid.

182. Ibid.

183. Bukkvoll, p. 3.

184. Kalinina and Kozyulin, p. 32.

185. Loro Horta, "From Russia without Love; Russia Resumes Weapons Sales to China," Real Clear Defense, December 11, 2013, available from http://www.realcleardefense.com/articles/2013/12/12/from_russia_without_love_russia_resumes_weapons_sales_to_china_106998.html.

186. Alexei G. Arbatov, *The Transformation of Russian Military Doctrine: Lessons Learned From Kosovo and Chechnya*, Garmisch, Germany: George C. Marshall Center, European Center for Security Studies, 2000, pp. 8, 17; Paul Webster, "Just Like Old Times," *Bulletin of the Atomic Scientists*, Vol. 59, No. 4, 2003, pp. 33-34.

187. Nikolai N. Sokov, "Upping the Ante: The Implications of Russia's Pursuit of Precision Conventional Strike Weapons," WMD Junction, December 20, 2013, archived page available from https://web.archive.org/web/20140420134807/http://wmdjunction.com/131220_russia_precision_conventional_strike.htm.

188. Ruslan Pukhov and Mikhail Barabanov, "Challenges to the Reform of Defense R&D in Russia," *Moscow Defense Brief*, Vol. 1, No. 7, 2007, p. 9.

189. Leonid Gokhberg, "Transformation of the Soviet R&D System," in Leonid Gokhberg, Merton J. Peck, and János Gács, eds., *Russian Applied Research and Development: Its Problems and its Promise*, IIASA Research Report No. RR-97-7, Laxenburg, Austria: International Institute for Applied Systems Analysis, April 1997, p. 22.

190. Pukhov and Barabanov, p. 9; Svetlana Yurievna Oglobina, Ana Paula Faria, and Carlos Cabral-Cardoso, "Research and Development in Russia and Its Role In National Competitiveness," *International Journal of Innovation Management*, Vol. 6, No. 2, 2002, p. 146.

191. Clifford Gaddy and Barry W. Ickes, "Underneath the formal economy: why are Russian enterprises not restructuring?" *Transition*, Vol. 9, No. 4, August 1998, p. 1, available from <http://documents.worldbank.org/curated/en/406871468308106961/Transition-9-4>.

192. The overall wear and tear of fixed assets was over 50 percent by 2002. Iu V. Erygin and A. M. Saakian, "Russia's Defense-Industrial Complex: Development Trends," *Problems of Economic Transition*, Vol. 54, No. 4, 2011, p. 7.

193. *OECD Innovation 2011*, p. 142.

194. Alexei G. Arbatov, "Military Reform in Russia: Dilemmas, Obstacles, and Prospects," *International Security*, Vol. 22, No. 4, 1998, p. 108.

195. Julian Cooper, "Military Procurement in Russia," in Roger N. McDermott, Bertil Nygren, and Carolina Vendil Pallin, eds., *The Russian Armed Forces in Transition*, London, UK, and New York: Routledge, 2012, p. 175; Julian Cooper, "Russian Military Expenditure, 2014, 2015, and 2016," unpublished paper, Stockholm International Peace Research Institute, Federal Budget Research Note, February 2016.

196. Cooper, "Russia's State Armament Programme," p. 29.

197. "KRET Potratit na Importozameshhenie Bolee 24 Mlrd Rublej" ("Kret Spent More than 24 Billion Rubles on Import Substitution"), *Tass*, August 26, 2015, available from <http://tass.ru/armiya-i-opk/2211453>; "Nauchno-Issledovatel'skij Institut Polimernyh Materialov Pozdravljaet Vseh Rabotnikov Predprijatija, Partnerov i Zhitelej Goroda Permi s Nastupajushhim Novym Godom i Rozhdestvom" ("Research Institute of Polymeric Materials Congratulates All Employees, Partners and Citizens of the City of Perm on the coming Happy New Year and Merry Christmas!"), Scientific Research Institute of Polymeric Material, available from http://niipm.perm.ru/press_tsentr/novosti/novosti_kompanii/niipm_pozdravlyayet_s_novyim_godom.

198. "Programmu Razvitija VPK Otpravili Na Dorabotku" ("VPK Targeted Development Plan Sent Back for Revision"), *Izvestia*, August 28, 2015, available from <http://izvestia.ru/news/590569>.

In addition, the Federal Target Program for the defense industry has provided targeted capital investment funds for 500 enterprises involved in high-priority defense programs, including many R&D enterprises.

199. The World Bank, Databank, Inflation GDP Deflator, available from <http://databank.worldbank.org/data/reports.aspx?source=2&country=RUS&series=&period=>; Bukkvoll, pp. 45-46.

200. A. V. Sokolov, "The Russian Defense-Industrial Complex: Chaos in Interactions with Government," *Problems of Economic Transition*, Vol. 54, No. 4, August 2011, p. 21.

201. "Oboronnaya Promyshlennost Novosibirskoy Oblasti Podvela Itogi Goda" ("The Defense Industry of the Novosibirsk Region Summed up the Year's Results"), Zhukovsky, Russia: JSC Research Institute for Electronic Devices, December 12, 2013, available from http://oaoniiiep.ru/media/media-us.php?ELEMENT_ID=17.

202. "Oboronnyye Pedpriyatiya Mogut Vyigrat v Soper-nichestve Za Privlecheniye Molodykh Spetsialistov" ("Defense Companies Can Beat the Competition to Attract Young Professionals"), atomic-energy.ru, April 30, 2011, available from <http://www.atomic-energy.ru/smi/2011/04/30/21825>.

203. For an example, "Novyy Proizvodstvennyy Korpus NII Elektronnykh Priborov Sdadut v 2015 Godu" ("New Industrial Building for SRI Electronic Devices Will Come in 2015"), Zhukovsky, Russia: JSC Research Institute for Electronic Devices, January 23, 2015, available from http://oaoniiiep.ru/media/media-us.php?ELEMENT_ID=121, describes the launch of a new production and engineering complex for Novosibirsk Scientific Research Institute of Electronic Instruments.

204. James H. Irvine, *Soviet Weapon-System Acquisition*, China Lake, CA: Naval Weapons Center, September 1991, pp. 14-16.

205. *Ibid.*, pp. 16-17.

206. *OECD Innovation 2011*, p. 141.

207. *Ibid.*

208. Clifford G. Gaddy and Barry William Ickes, *Russia's Virtual Economy*, Washington, DC: Brookings Institution Press, 2002, p. 45.

209. *Ibid.*, p. 46.

210. Susanne Oxenstierna, "Russia's defense spending and the economic decline," *Journal of Eurasian Studies*, Vol. 7, No. 1, 2016, p. 65; Julian Cooper, "The Russian Economy Twenty Years After the End of the Socialist Economic System," *Journal of Eurasian Studies*, Vol. 4, No. 1, 2013, p. 59.

211. Cooper, "The Russian Economy," p. 59.

212. *Ibid.*

213. *OECD Innovation 2011*, p. 13.

214. Others included the desire to reimpose state control over the strategic defense industry and to build national champion industries to compete more effectively in international markets.

215. Oxenstierna and Westerlund, p. 13.

216. Kalinina and Kozyulin, p. 36.

217. *Ibid.*

218. Pukhov and Barabanov, p. 11.

219. "Vertical Integration As a Means of Reorganizing the Defense Industry," *Problems of Economic Transition*, Vol. 57, No. 6, October 2014, pp. 22-233.

220. Bukkvoll, p. 32.

221. Cooper, "The Russian Economy," p. 59.

222. Cooper, "Russia's State Armament Programme," p. 4.

223. Vladimir Putin, "Speech at Expanded Meeting of the State Council on Russia's Development Strategy through to 2020," February 8, 2008, available from <http://en.kremlin.ru/events/president/transcripts/24825>.

CHAPTER 5. MILITARY EXERCISES: THE RUSSIAN WAY

Isabelle Facon

INTRODUCTION

In mid-June 2016, foreign attachés in Moscow were informed that the Russian President had ordered surprise combat readiness drills (June 14-22) which were probably an answer to the North Atlantic Treaty Organization's (NATO) Anaconda 16 exercise that was taking place in Poland. All military districts would be affected, as well as a number of military equipment storage bases and separate bodies of military and civil administration.¹ This was one among the many and increasingly complex exercises that the Russian military has been conducting since the mid-2000s after long, lean times in the post-Cold War era in the 1990s. Indeed, the Russian Government faced the need to shape a new defense posture, but it could not carry out the necessary adjustments due to the total confusion that Russia was living through in that period. This had dire consequences upon, among other things, the training of the Russian armed forces and their proficiency and readiness, which plunged to a very low level. In 1994, 2 years after the official creation of the Russian Army on May 7, 1992, training exercises were cut by 70 percent. Throughout that decade, combat pilots flew only 30 to 35 hours a year; in each military district, only 1 or 2 Army divisions could be considered combat-ready.² The major deficiencies in the Russian military organization revealed by the 5-day Georgia war in 2008 were indirect products of the quasi-absence of real-life tests for the Russian forces through exercises.

In fact, exercises only started increasing in frequency and taking more realistic forms in the mid-2000s. In the past few years, Russia has significantly increased the pace and size of its military exercises. Army, air, naval, nuclear, and airborne forces have all been involved, separately or together, in maneuvers held in all military districts (MD), sometimes with foreign countries. Exercises are now planned and executed at all levels—command post exercises (CPX) testing command structures (headquarters) and their communications networks without actual engagement of forces; field training exercises (FTX) under simulated combat conditions in open field; combined training exercises (CTE) with the armed forces of foreign countries; combined arms live fire exercises encompassing joint maneuvers (Army, Navy, Air Force, etc.) held at the operational or tactical levels; etc.³ Between July 2013 and September 2014 alone, six major exercises were held from Kaliningrad to the Kuril Islands and from the Arctic to Russia's southern borders. The complexity of the scenarios has also been strengthened. It is not rare that in parallel to annual strategic exercises, other maneuvers are conducted "in other parts of Russia or with a different focus," which makes the political and military leadership face more complex decision making and tasks.⁴ In addition, since 2013, snap exercises have been regularly called to evaluate the operational readiness of the armed forces.

The increased intensity of combat training in the Russian armed forces and the growing number of unannounced snap exercises have aroused concern among NATO members, especially after 2014 with the annexation of Crimea and Russia's support to the separatists in Donbass. This does not have to do with the impressive size of some of these exercises but in the context

of the deteriorated relationship between Moscow and the West. Moreover, fears have been voiced—notably in Eastern and Central European countries—that some of the Russian exercises might become a prelude to the possible surprise use of force against their territory, “giving little or no early warning to NATO.”⁵ Major (150,000) exercises (surprise inspections) were ordered on February 26, 2014, in the Central and Western MDs before the “Crimea operation.” During this time, units were deployed along Ukraine’s border in a show of force probably aimed at deterring the Ukrainian Government from acting and, as a signal to the West, at displaying Russia’s determination to defend its perceived interests in the conflict. Shortly before the beginning of the Russian air campaign in Syria on September 30, 2015, Moscow deployed four warships from the Black Sea for drills, and the Russian Ministry of Defense (MoD) announced naval maneuvers in the Eastern Mediterranean Sea from September 30 until October 7.⁶ Tsentr-2015 exercises, like many Russian exercises, had several dimensions—one of them being to prepare and support Russia’s operations in Syria that were to take place a few days later. As a result, Russian military exercises are now seen with suspicion and apprehension by Russia’s neighbors as they could be interpreted as a way to distract the international community’s attention from preparations for a dubious undertaking (such as the Crimea process) or a rehearsing of forces before an actual military intervention.

In the current degraded context of Russia-NATO military relations, sudden mobilization exercises, especially when conducted without prior notification, go with a risk of miscalculations and possibly military escalation.⁷ This makes it important to reflect on how Russia’s military exercises should be interpreted, on

what strategy they embody, and on the major factors that drive this effort. What are their motivations and significance? Such an analysis implies to assess Russia's military exercises and training activity in a context broader than the complex West-Russia relationship, however important this is.

EXERCISES IN THE RUSSIAN ARMED FORCES: RECENT TRENDS

In Syria (and to a lesser extent in Ukraine), Russian forces performed professionally, seemed well organized and agile, and displayed an improved command and control (C2). This definitely owes much to the investment that the Russian military has realized in combat training activities in recent years, leading to a significant increase in the pace, size, and complexity of its military exercises.

Quantitative Trends

This effort started in the mid-2000s, in connection with the gradual increase in Russian defense spending. This has been a systematic process. The starting point of this evolution is considered to be 2005. In September 2005, 66 tactical exercises (at battalion level) were carried out. In November, a new training scheme lasting 10 months instead of 6 months was adopted to enhance the preparation of Russian forces.⁸ The situation improved rapidly after the nomination of Anatoly Serdyukov as Defense Minister in 2007 and the Georgia war the following year, which, although it was a strategic success for Russia, showed many deficiencies in its military machine.

The increased pace at which the Russian military now exercises its forces is striking. According to the

current Defense Minister Sergei Shoigu, the number of exercises in 2015 was close to 4,000 against 3,500 in 2014, a 15 percent rise.⁹ According to Deputy Defense Minister Dmitry Bulgakov, Russia would hold the same number of exercises in 2016, some of them involving tens of thousands of soldiers—despite the economic crisis and the cost of military exercises, which consume significant amounts of resources (ammunition; spare parts; petroleum, oil, and lubricants [POL]; etc.).¹⁰

The scale of some exercises (several tens of thousands of troops involved, as well as impressive numbers of pieces of equipment) has contributed to concern on the part of Russia's neighbors. In March 2016, about 30,000 military members and 100 aircraft took part in a snap exercise to test the combat readiness of Airborne Troops (*Vozdushno-Desantnye Voyska* [VDV]); airborne units were airlifted 1,500 kilometers (km) away. In March 2015, a snap exercise was held in the new Northern Strategic Command. The Northern Fleet was put on alert for 5 days, and 45,000 personnel, approximately 3,000 vehicles, 40 surface ships, submarines, and 110 aircraft were deployed to positions in Novaya Zemlya and Franz Josef Land. As the exercise expanded beyond the Far North, it ultimately involved 80,000 personnel, 12,000 pieces of heavy equipment, 65 warships, 15 submarines, and 220 aircraft.¹¹ In 2014, according to a number of sources, the Vostok command post exercise (which takes place every 2 years) reportedly involved about 150,000 personnel (however, a number of experts recommend cautiousness on this, mentioning the possibility that Russia, motivated by a willingness to convey "impressive messages" about its military power, might have inflated the size of the drills).¹²

Qualitative Trends

Considerable effort has also been spent to increase the quality and usefulness of military training. The correlation between an appropriate command structure and skill in the use of forces should be kept in mind when looking at present Russian military exercises. After being defeated by the Japanese Empire during the 1904-1905 war, Grand Duke Nicholas Nickolaevich, who commanded the Guard, organized regular maneuvers in Krasnoye Selo, which had a valuable effect in terms of enhancing the tactical skills of the Russian Army prior to World War I. However, their positive results were ruined by the inefficiency of the high command, which at that time was hampered by appalling instability at the head of the General Staff of the Imperial Army.¹³

In the 2010s, just like in the past, the Russian high command considers that training can only bring value if there is a well-defined and modern command structure able to use forces competently and aptly in actual military operations. This condition was basically absent in the 1990s when the Russian command structure was profoundly destabilized by the consequences of the collapse of the Soviet Union. Currently, one product of the ongoing military reform launched in 2008 is that the Russian military has a better organized, more flexible command structure, embodied by, among other things, the new National Defense Control Centre (declared operational on December 1, 2014). The website of the Russian MoD explains that exercises are controlled and assessed at this level, and that this is an important element of its activity in peacetime:

during such exercises troops interact with law enforcement organs, special services, federal government and local

government bodies. All government agencies, more precisely, their abilities to act effectively are subjected to a severe test in emergency situations of armed conflict or war.¹⁴

The National Defense Control Centre is, indeed, also supposed to be a key player for coordination between MoD troops and other forces structures (*siloviki*) and for civil-military cooperation (CIMIC), the two having been key dimensions of many Russian military exercises in recent years.¹⁵

There are other indications of the Russian military's commitment to more efficient training and more modern training methods. One was the establishment of the 333d Western MD Combat training centre in Mulino, which has been operational since September 2015 and is run by the Oboronservis company for the armed forces. The German company Rheinmetall Defence Electronics, which built the Bundeswehr's GUZ centre, was selected as the co-developer of the project before Western sanctions against Russia froze the cooperation. A 7-week training program allows the equivalent of a motorized rifle brigade of several thousand troops to undertake exercises from the individual soldier to the full brigade.¹⁶ New equipment is used in drills such as modern targeting systems, unmanned aerial vehicles (UAVs), and modern simulators, which, according to Shoigu, contributes to the rational use of the available resources.¹⁷ New modern training grounds are being built, especially in eastern regions, and more are supposed to appear in years to come.¹⁸

Snap Inspections

In late 2015, Defense Minister Shoigu declared that "snap complex combat readiness inspections

conducted since 2013 have made a significant contribution to personnel combat training.”¹⁹ Be they major or unit-level, exercises conducted without prior warning and planning for the forces involved, called snap combat readiness exercises (*vnezapnye proverki*), offer worthy occasions to test and train and units, identify promising officers, correct insufficiencies, reinforce the esprit de corps, and increase readiness. These exercises were common practice until the fall of the Soviet Union and were reintroduced in 2013 (that year, 12 such drills were ordered, including a major drill in the Eastern MD, and 18 were ordered in 2014, including 3 large-scale drills). Shoigu explained at a meeting of Defence Ministry Board that such drills are aimed at testing the armed forces’ ability to switch from peacetime to wartime activities. This flexibility is supposed to allow “commanders and staffs in any military district and force” to be “capable of long-distance redeployment and performing missions on unfamiliar terrain.” In the same meeting, Russian President Vladimir Putin stated, “We have improved the quality of fulfilling combat training exercises, and the snap exercises held in nearly all military districts have confirmed the high level of readiness among units and formations.”²⁰ Such exercises have been organized either on a territorial basis (at the level of MD) or on a functional basis (involving one of the subcomponents of the Air Force, Navy, or Army).²¹ In May 2013, a surprise inspection took place in Air Defence and Aerospace Defence Forces from the Western MD, probably indicating concerns about the defense of Moscow and the surrounding area from air attack by a sophisticated enemy (possibly NATO). They may involve forces and units from all the MDs—like during the June 2014 snap exercise held in the Central MD aimed at “creating a self-sustaining group

[of forces] for any operational direction,"²² or the year before in the Eastern MD. Shoigu has explicitly drawn a link between these exercises and the performance of the Russian armed forces in Syria by declaring that "intense combat training preceded our successful performance" there.

MAJOR DRIVERS OF THE REVIVAL OF COMBAT TRAINING IN THE RUSSIAN ARMED FORCES

Reconnecting with the National Military Tradition

When addressing the significance of today's Russian military exercises, history remains a helpful beacon. Training and exercising have always been of paramount importance for all armed forces, and the Russians are no exception to the rule. The desire of the Russian military leadership to compensate for the crisis of military training from the early 1990s till the mid-2000s is indeed all the more acute since exercising was always central throughout Russian military history, both tsarist and Soviet. The tsarist, then Soviet military high command persistently called for exercising troops to get them ready to go to war. Such an approach has been a constant feature in Russia dating back to Peter the Great. In the 18th century, Alexander Suvorov (1729-1800), who was said to have not lost any battle, recommended applying the Prussian army principle: "train hard, fight easy" (*Tiazhelo v uchenii, legko v boiu*).²³ At that time, the training and learning process of officers required them to participate in frequent exercises in order to practice repeatedly, as in the Prussian Army, where knowledge was considered as power in itself ("*Wissen ist macht*," or "Knowledge

gives power"). Suvorov also wanted officers to be taught what speed, assessment, and hitting power (*bystrota*, *glazomer*, and *natisk*) meant on the battlefield, a prescription maintained during the Soviet era and up to today; Suvorov continues to influence leading military thinkers such as General Makhmut Gareev, the president of the Academy of Military Sciences.²⁴

Closer to our times, while recognizing the importance of technological advantage on the battlefield, Marshal Nikolai Ogarkov (and those inspired by his thinking) consider that being innovative in military affairs means being able to identify correctly the changing character of war.²⁵ Based on this understanding, Russia would outperform a technologically superior enemy by asymmetrical responses and superior and more creative doctrines. From this point of view, too, exercising is of the utmost importance.

Assessing the Effects of Military Restructuring

In the context of the military reform Russia has been pursuing since 2008, exercising is considered more important than ever to test the "new look" of the armed forces that this reform is supposed to produce.²⁶ The Russian military leadership has used exercises to identify problems in the new structure of the armed forces and to rectify them. Chief of the General Staff of the Armed Forces of Russia General Valery Gerasimov put it clearly following the Zapad-2013 exercises when he declared that the purpose of the exercise was to identify and address shortcomings and to ensure that Russia's force development process is on the right path.²⁷ Among the elements which Minister Shoigu underlined as problems that had to be corrected after the observation of snap drills that took place in the

Far East in summer 2013, was the substandard skill of tank gunners due to insufficient live ammunition. The lesson was learned: crews for the Armata family of vehicles, including the T-14 MBT, would be trained at a specially established camp at Nizhniy Tagil. The MBT would be manned solely by professional contract soldiers, rather than draftees. Shoigu also raised concerns about the insufficient number of adequate airfields to accommodate reinforcements and deployments of forces to the eastern part of Russia.²⁸ So real attention is paid to studying the lessons provided by snap exercises and to correcting the flaws and weaknesses they reveal.

Two key elements have featured very high on the training activity agenda since combat training has been revitalized—interservice coordination and strategic mobility. A number of military exercises in recent years have stressed the importance of coordination between the various branches of the armed forces. Interservice coordination was a weak point in Georgia. Better coordination between the MoD and other force structures, including the Ministry of Emergency Situations (MChS) (which encompasses the Federal Security Service [FSB] and Ministry of Internal Affairs [MVD]), has been used in several strategic exercises. This probably points primarily to contingencies on Russia's territory—for example, in the North Caucasus, or in the close neighborhood (for example, infiltrations of militant groups from troubled zones to Central Asia, or major social and political upheavals overwhelming local governments). The 2011 Tsentr exercises, to quote only one example, involved groups of forces from MVD, FSB, Federal Protection Service (FSO), MChS, and the Federal Drug Control Service (FSKN).

Strategic mobility has also been prioritized in Russian military exercises. This corresponds to a well-known reality: the size of Russia's territory (1.8 times the size of the United States) makes it difficult to cover the borders permanently and fully—more than 20,000 km—against potential attack (especially now that the forces have been considerably reduced, at least from a Russian viewpoint).²⁹ The Western MD alone has an area of responsibility of 2 million square km of airspace and 3,000 km of borders.³⁰ In addition, Russia's commitment to its Collective Security Treaty Organization (CSTO) allies has to be considered. In such conditions, the question of where to locate the various components of the armed forces has always been and remains a challenge to the General Staff. The Russian military leadership's answer is moving troops where needed, including over several thousand km. This has become a recurrent element of the training activity of the Russian forces that would have a significant core of joint forces that are swiftly deployable. Large-scale military exercises at the operational level, with tens of thousands of people and thousands of pieces of equipment, are used to test the availability of such a potential and the ability of the Russian forces to be redeployed in all strategic directions. It also tests the ability of the command structure of the military districts to manage large and complex operations involving coordination with the forces of other military districts.

The Vostok 2014 exercises were an occasion to deploy forces from the Western MD to the eastern part of the territory. A year before, in the Zapad-2013 exercises, strategic mobility was a key aspect; for that purpose, the drills involved CIMIC (including the use of civilian transport assets). The September 2015 snap inspection that took place in the Central MD was an

additional opportunity to test strategic mobility, with 40 IL-76 transporters redeploying troops over long distances.³¹

On CIMIC, elements were tested in a number of exercises (including strategic ones such as Zapad-2013 and Vostok 2014). Some exercises are “classical” in the sense that the armed forces train to support other force structures in emergency management situations. What is more noticeable is when CIMIC is being exercised the other way round. Indeed, it is important to note the mobilization effort that the Russian leadership—which is paying a lot of attention to wartime activities of other state agencies, regional administrations, and various economic actors (transportation, energy, etc.—is trying to impose, is on all components of society. Indeed, “the extent to which force integration and cooperation with civilian agencies has become a feature of exercises demonstrates very serious efforts to enhance civil-military cooperation in ways that have no parallels in Western countries.”³² This dimension, present in many recent exercises, tends to show that Russia prepares for nationwide war efforts and for big wars.

As noted by Swedish Defense Research Agency (FOI) expert Johan Norberg, there has been a shift after 2013, in the sense that in 2009-2013, exercises were focused on testing the armed forces, which were “under reconstruction;” afterwards, they started becoming more ambitious in size and firepower, and more focused on testing strategic mobility capabilities.

Compensating for the Lack of Live Combat Experience and International Cooperation

For the Russian military, exercises are all the more important since the national forces have not had a lot of “real life” combat experience since the end of the Cold War, unlike Western forces, who have gained experience and skills in challenging combat operations (Iraq, Afghanistan, Africa, etc.). For example, French Army, Air, and Naval units have been almost constantly deployed in combat operation since the early 1990s; in 2016, about 10,000 French soldiers were involved in combat operations abroad, mostly in Africa. Russian operations have largely been confined to the Russian territory (the two Chechnya wars) and small-scale undertakings abroad—hybrid operations in Crimea and Donbass, and the rather successful air operation in Syria. That means that the bulk of the Russian forces have not been engaged in real combat operations over the past 2 decades and need to test procedures, equipment, and capabilities in conditions as close to real operations as possible. Here, too, the only way to compensate for the lack of combat experience has been exercising at all levels of operation (tactical, operational, and strategic).

Russia’s limited international military cooperation indirectly contributes to this need for real life combat experience as well. Although the Russian military doctrine calls for enhanced contacts with foreign armies, international training has so far remained of a rather limited scope for Russian forces. To take only one example, the joint Russian-Indian tactical exercise Indra-2014 (September 26 to October 2, 2014 in Volgograd oblast) involved only 700 servicemen from India working with infantry units of the Southern MD.³³

Similarly, a year later, Indra-2015, the seventh of its kind, mobilized only a small number of soldiers.³⁴ In fact, Russia has no powerful close military allies with whom it can conduct exercises that provide Russian forces with real experience-acquisition effects through the exchange of practices and that allow them to work out, in partnership, innovative operational concepts. From this point of view, the situation is very different from that of Western powers which benefit by their ability to train, test, exercise, and upgrade structures, procedures, and doctrine collectively (through NATO or the Multinational Interoperability Council that brings together the United States, France, the United Kingdom, Germany, Canada, Italy, and Australia).³⁵ The Multinational Interoperability Council was established precisely to conceive new concepts and planning modes in a hyper-complex technological environment. In other words, Russian forces cannot launch exercises on a large scale in a joint environment with foreign forces operating different equipment and using other methods for operations, and Russia does not work very much with foreign forces that use these different procedures and operate different equipment. In joint exercises with foreign countries, most of Moscow's partners (CSTO, China, India, etc.) are clients of the Russian arms industry; hence, the characteristics and performance of their equipment bring little surprise to Russian armed forces.

The relative weakness of Russia's international military interaction means that its military has no other choice but to assess the relevance of its doctrinal, organizational, and equipment choices through using mostly its own standards and principles. In other words, the major benchmark for assessing its performance is itself. Admittedly, the traditional creativity of

Russian military thinking sometimes brings out innovative tactical and operative developments (as was the case under Ogarkov a few decades ago: Operational Maneuver Groups, formations of the Soviet Army [TVDs], etc.; or nowadays with “non-linear warfare”). However, it may also lead to misconception or excessive confidence with potentially dire awakenings.

Military Training in Russia’s Foreign Policy Tool Box

According to the Russian MoD, the implementation of bilateral or multinational drills “contributes to strengthening the collective security system, increases the level of confidence between countries-partners, [and] facilitates the search for common approaches to international security.”³⁶ While the Russian military has not built close interaction with other armies, in recent years, it has conducted joint drills with foreign countries in directions that are very cohesive with the current trend of Moscow’s foreign policy. For example, the rebalance to Asia that Russia has been pursuing since the mid-2000s (with increased emphasis since the West imposed sanctions on Moscow) finds illustrations in its international military activity. The Russian-Chinese ties are becoming more prominent in this field. The first naval exercises between the two countries took place in 2012. Three years later, in August, the Russian and Chinese Navies undertook their largest-ever joint drill in the Mediterranean Sea, Naval Interaction-2015, putting together 23 surface vessels, 2 submarines, 15 fixed-wing aircraft, 8 helicopters, as well as airborne forces and marines. According to *Jane’s*:

the type of training undertaken has progressed from search-and-rescue drills, escorting transiting vessels, and

responding to maritime hijackings to the more demanding warfare roles of anti-air warfare (AAW), anti-submarine warfare (ASW), and anti-surface warfare scheduled in the 2015 exercises.³⁷

Shoigu announced that the two countries intended to increase the number of joint military exercises in 2016.³⁸ In 2016, the Russian forces participated in their first military exercise with Pakistan and their first joint military maneuver with Vietnam. Overall, the troops of the Russian Eastern MD would take part in nine international exercises in 2016—with China, Japan, Mongolia, and Vietnam, as well as three drills with India.³⁹ As suggested earlier, it is likely that one of the key lessons of Russia's training activity is about the need to strengthen both force levels and infrastructure in the eastern part of Russia's territory. The willingness to support the turn of Russian foreign policy to the east with concrete pillars will probably increase this perceived need.

Part of the international exercises that the Russian armed forces have conducted in recent years has taken place under the auspices of multilateral organizations that embody both Russia's increased focus on Asia and its willingness to enhance its influence in the post-Soviet space. One has in mind exercises conducted within the framework of the Shanghai Cooperation Organization (SCO), primarily the Peace Mission drills, and that of CSTO. Conducting regular exercises with CSTO allies (for example Tsentr or Rubezh exercises)⁴⁰ is not really about their input in potential military operations, given the clear-cut quantitative and qualitative gap between their armed forces and Russia's.⁴¹ It constitutes, however, an efficient way to signal Russia's commitment to these countries as well as the specificity of its ties to them by comparison to other powers

involved in the region. (Russia is the one that has the most extensive military relations with them, which it can use to demonstrate it retains geopolitical leadership there.) For example, joint exercises are an important component of the Russia-Belarus alliance relationship. Union Shield-2015, held in September 2015, involved around 8,000 men; Colonel General Anatoly Sidorov, then-commander of the Russian Western MD, and Major General Oleg Belokonev, First Deputy Defense Minister of Belarus, commanded the exercise. Belarusian troops have repeatedly taken part in Zapad exercises, all this being used by the leadership of the two countries to demonstrate the strong degree of integration of their armed forces.⁴² This integration is especially useful in recurrent contexts of political tensions between Russia and Belarus—and by the two militaries to enhance their interoperability. In the same vein, organizing drills on the territory of the unrecognized separatist territories of Georgia (Abkhazia and South Ossetia, where Russia has deployed military bases) as Russia did in March 2015 helps to recall to the international community that the status quo which Moscow imposed there in 2008 is here to stay.⁴³ Russian forces in Transnistria also exercise a lot. In 2015, the Operational Group of Russian forces there conducted more than 1,000 small-scale exercises.⁴⁴

Western partners are, unsurprisingly, increasingly absent from the picture of Russian international military training. Before the conflict in Ukraine, Russia had started to participate in maneuvers with Western armed forces. For example, in summer 2012, the Russian Navy took part in the international naval exercise RIMPAC with its counterparts of 21 other nations. It also participated in NATO's exercise Operation Active Endeavour in the Mediterranean Sea. On a more

symbolic note, one may remember that the French Air Force Normandie-Niemen squadron, created on the eastern front in 1942, used to train and exercise regularly with its Russian counterpart (the last such exercises were held in August 2013 near Nijni-Novgorod).

CONCLUSION

Just like in every army, checking combat readiness and proficiency is one of the main priorities of the Russian high command. Training individual soldiers and officers to accomplish their mission and increasing the aptitude of command structures to work in a complex environment and with other structures of the Russian state probably is considered of the utmost importance. In doing so, Moscow is correcting the steep decline in training activities over almost 15 years after the fall-out of the Soviet Union and testing the structure of its “new” armed forces, which have been undergoing thorough reform since 2008. The effects of the intensification of military exercises in recent years are quite visible. The Russian military now has an enhanced ability to project more forces over large distances and amass forces quickly where they are needed. Command and control of joint groups of forces (including non-MoD troops) in complex operations have also noticeably improved. At the same time, exercises have given an opportunity to measure the complexity of problems to be solved, including the reserve system, the persisting quality problems associated with conscription, and the need for compensating for the relative “military emptiness” of Russia’s eastern territories.

Looking at the enhanced training activity of the Russian armed forces as if it were primarily Western-centered is missing part of the picture. The reality is

more complex. Some of the most important exercises have probably more to do with contingencies in the Caucasus and Central Asia. Defense Minister Shoigu explained in December 2015 that the Tsentr-2015 exercises, held from August 18 to September 20 in Russia and Kazakhstan, staged an intervention in Central Asia under the auspices of the CSTO. They were an opportunity for the Russian armed forces to perform “the full range of measures to prepare and conduct combat action in the Central Asia strategic area. For the first time in 25 years, we have practically resolved the task of creating and using a powerful strike aviation group.” The massive air strike involved 150 craft and landed 800 paratroopers. During the exercises, the force grouping fully confirmed their readiness and ability to ensure Russia’s military security in Central Asia.⁴⁵ In June 2014, a snap inspection undertaken at the level of the Central MD involved 65,000 troops from 4 military districts. More than 180 aircraft and 60 helicopters were analyzed by senior specialists of the Russian military as being “linked to Russian concerns over security in Central Asia following the completion of the International Security Assistance Force (ISAF) drawdown in Afghanistan.” Forces based in Kyrgyzstan and Tajikistan were placed on alert.⁴⁶

Vostok (East) drills have a certain amplitude, and, as their title suggests, are not directly connected to the threat perceptions in Western countries.⁴⁷ One explanation is that Russia is conveying messages to the United States, Japan, and China that it is prepared to protect its borders and interests in the east where its military presence is undersized. In the same way, snap exercises that took place in February 2016 in Russia’s Southern MD were probably a message to Turkey in the context of the degraded bilateral relationship

following the downing of a Su-24 fighter-bomber by the Turkish forces.⁴⁸

By and large, Russian training activity reveals much about Moscow's need to test and adapt its armed forces at a time when these are faced with simultaneous challenges: integrating technological change; and, responding to what Russia continues to see as its hostile and complex security environment, with risks that are geographically diverse and multidimensional. Russian training activities cover the whole spectrum of military action, from high-tech combat operations to the fight against jihadists, or even the handling of social upheavals in the "near abroad."⁴⁹ The sequence of certain exercises conducted simultaneously indicates, among other things, that Russia takes into account the possibility that it could have to handle two fronts at the same time.

At the same time, the West has good reasons to be concerned by Russian training activities. Many of the largest-scale exercises and drills that include a nuclear dimension have taken place in the western part of Russia's territory. For several years now, Russia has worked on scenarios of conventional conflicts that Russian forces could put to an end only through a nuclear strike. The 2009 edition of Zapad exercises even included a simulated nuclear attack on Poland (the drill involved 12,500 servicemen, half of which were Russians, and its scenario was based on the need for the Russian and Belarusian militaries to repel a NATO attack on Belarus). Many exercises send signals about some of Russia's concerns about NATO. Although the Russian President's Press Secretary, Dmitry Peskov, denied any link between the March 2015 snap exercise and NATO's policy, the drill was a clear message about Russia's willingness to show the

preparedness of its renewed force in both the Baltic and the Arctic.⁵⁰ It was also used as a reminder of Russia's frequent threats to deploy Iskander missile systems in the Kaliningrad exclave to respond to NATO's policy in Central Europe—such systems were indeed moved to the exclave for the drills, and then returned to their bases.⁵¹ Against the background of the wide Anaconda 16 exercise that NATO conducted on the eve of the Warsaw NATO summit, the Russian Government decided to launch surprise inspections throughout its whole armed forces. It is clear that exercises are instrumental to Russia's policy of intimidation of its neighbors (and again, in the heated context of 2014, Russia used snap inspections as an additional means of pressure on Kyiv) and of deterring potential adversaries.

The perceived military gap with the cumulated Western military power (at the level of defense budgets, manpower, equipment, and technological capabilities) has pushed the Russian military to look for innovative concepts to compensate for, and even undermine when possible, the military superiority of the West. Combat training and exercises have been used by the Russian military to test original ways to constrain and limit the West's military freedom of maneuver either at Russia's borders (annexed Crimea and Kaliningrad) or, as in Syria, where Moscow intends to promote its interests by military means. In this way, the Russian military has, among other things, created at the operational level "defensive/offensive combined forces complexes," which may swing from an offensive mode to a defensive one and vice versa. Experienced in a number of exercises, these "complexes" are based on tangible capacities to move forces swiftly and build networks in a joint environment, mixing ground forces; special forces; air defense systems (S-300 system); naval forces,

if needed (i.e., to fire Kalibr missiles from the Caspian Sea); tactical, ground-to-ground missiles (Iskander, nuclear-capable SS-26 Stone); complex electronic warfare systems; and, aerospace capabilities. As explained by Gerasimov:

the role of mobile, mixed-type groups of forces, acting in a single intelligence-information space thanks to the use of the new possibilities of command-and-control systems has been strengthened. Military actions are becoming more dynamic, active, and fruitful. Tactical and operational pauses that the enemy could exploit are disappearing. New information technologies have enabled significant reductions in the spatial, temporal, and informational gaps between forces and control organs.⁵²

Such forces are directed by an efficient command structure, which has been improved through intense training activities.

At a time when Russia considers that its traditional “glacis” is being increasingly challenged and that a number of key players are opting for strategic postures that are contrary to its national security interests, Russian leaders wish to have the widest range of options—conventional and nuclear, military and non-military, etc.—at their disposal, to be able to offer a flexible reaction to all of the possible challenges on an ad hoc basis and in a context where resources remain, in many ways, constrained. This constitutes a strong incentive for testing all types of forces and technologies under various scenarios, as often as possible—all the more so that military exercises represent a tool among others in Russia’s foreign policy toolbox.

ENDNOTES - CHAPTER 5

1. "Russia's Military Snapcheck to Affect All Military Districts—Defense Ministry," TASS, June 14, 2016.

2. Dale Herspring, *The Kremlin and the High Command, Presidential Impact on the Russian Military from Gorbachev to Putin*, Lawrence, KS: University Press of Kansas, 2006.

3. Other types of exercises such as FCX (fire coordination) or LOGEX (logistics) are also performed by the Russian forces.

4. Johan Norberg, *Training to Fight—Russia's Major Military Exercises 2011-2014*, Report No. FOI-R-4128-SE, Stockholm, Sweden: Swedish Defence Research Agency, December 2015, p. 23, available from <https://www.foi.se/rapportsammanfattning?report-No=FOI-R--4128--SE>. The author cites several examples. One was in 2011, when the Russia-Belarus Union Shield exercise was conducted in Russia at the same time as the Tsentr exercises organized in Central Russia and in Central Asia and the Caspian Sea. Sequences of the Union Shield drill took place on the same spot as parts of the Tsentr exercises (Ashaluk training range). Sometimes exercises conducted as a succession in time can also be considered parallel as there is continuity in their scenarios. Johan Norberg sees indications that the Kavkaz-2012 exercise (Southern MD, Black Sea, Caspian Sea) and the one that followed in the Kola peninsula (Western MD, Northern Fleet) "were probably parts of a wider scenario for higher national levels of military and political decision making" (p. 33). Although the intents behind it are subject to various interpretations, such a sequence of two major inter-service drills gave the political and military leadership an "opportunity to exercise the complexity of planning and executing large complex operations" (p. 34).

5. Ian J. Brzezinski and Nicholas Varangis, "The NATO-Russia Exercise Gap," Atlantic Council, February 23, 2015; see also Damien Sharkov, "Russian Snap Military Drill 'Could Turn into Assault on Baltic Capital'," *Europe Newsweek*, February 23, 2015.

6. The cruiser *Moskva*, the destroyer *Smetlivy*, and the frigates *Pytlivy* and *Ladny*.

7. For example, in December 2014, Russia conducted, without informing NATO or the neighboring countries, a snap drill in Kaliningrad involving 55 ships, 9,000 personnel, 250 tanks and armored personnel carriers; dual-capable Iskander missile systems were deployed to that Russian territory sandwiched between Lithuania and Poland.

8. Herspring, p. x.

9. "Russian Troops Conduct Some 2,000 Tactical Drills in 2015," TASS, September 29, 2015.

10. POL—petroleum, oil, and lubricants (part of Class III in the U.S. Army class of supply).

11. Thomas Frear, "Anatomy of a Russian Exercise," *European Leadership Network*, August 12, 2015.

12. Norberg, p. 62.

13. Six commanders-in-chief held the post between 1905 and 1914 (Fedor Palitsin, Vladimir Sukhomlinov, Alexander Myshlayevski, Evgeny Gerngross, Yakov Zhilinskiy, and Nikolay Yanushkevich). See General Andolenko, *Histoire de l'armée Russe (History of the Russian Army)*, Paris, France: Flammarion, 1967.

14. "Exercises of the Armed Forces of the Russian Federation," Ministry of Defence of the Russian Federation, n.d., available from <https://eng.mil.ru/en/mission/practice.htm>.

15. The Ministry of Internal Affairs (*Ministerstvo Vnutrennykh Del*, MVD), the Ministry of Emergency Situations (*Ministerstvo Chrezvychainykh Situatsiy*, MChS), the Federal Security Service (*Federalnaya Sluzhba Bezopasnosti*, FSB), the Federal Guard Service, and the Federal Drug Control Service (*Federalnaia Sluzhba po Kontroliu za oborotom narkotikov*, FSKN) has representatives in the new center. In peacetime, the center's 1,000 personnel monitor the national and international situation as well as the strategic infrastructure of the Russian Federation. In wartime, the center would be in charge of command, control, and communication, and would coordinate the specific requirements imposed by the government on all state organs (including economic ones) to serve the military's needs. "Russia Launches 'Wartime Government' HQ in Major

Military Upgrade," RT News, December 1, 2014, available from <https://www.rt.com/news/210307-russia-national-defence-center/>.

16. See "Russian Army Orders Training Centre from Rheinmetall as Military Modernises," Defence Web, November 25, 2011, available from http://www.defenceweb.co.za/index.php?option=com_content&view=article&id=21510&catid=74&Itemid=30.

17. Speech at the Expanded Meeting of the Defence Ministry Board, Moscow, Russia, December 11, 2015, available from <http://en.kremlin.ru/events/president/news/50913>.

18. "Russian Troops to Join 9 Int'l Drills in 2016, Build High-Tech Ranges," *militarytechcooperations*, November 20, 2015, available from <https://militarytechcooperations.wordpress.com/2015/11/20/russian-troops-to-join-9-intl-drills-in-2016-build-high-tech-ranges/>.

19. Speech at the Expanded Meeting of the Defence.

20. Ibid.

21. Norberg, p. 24.

22. Defense Minister Army General Sergei Shoigu and Chief of the General Staff Army General Valery Gerasimov, quoted in Roger McDermott, "Russia Rehearses Military Intervention in Central Asia," *Eurasia Daily Monitor*, Vol. 11, No. 119, July 1, 2014.

23. On July 29, 1942, the Presidium of the Supreme Soviet of the United Soviet Socialist Republics (USSR) instituted the Military Order of Suvorov.

24. Bruce W. Menning, "Train Hard, Fight Easy: the Legacy of A. V. Suvorov and His 'Art of Victory'," *Air University Review*, November-December 1986.

25. The structural and conceptual reforms instituted by Marshal Ogarkov in the late 1970s were preceded by a thoughtful analysis of Russian military history from which lessons were drawn and adapted to modern times, leading to innovative doctrinal evolutions such as the creation of Operational Manoeuvre Groups (OMG), intended for high speed maneuver, at the operational level behind enemy lines, that were tested and developed

through multiple exercises. John Hines and Phil Petersen, who worked on Soviet military affairs at the Office of Net Assessment (ONA) at the Department of Defense (DoD), mentioned such a motorized rifle division exercise in the spring of 1981, and a second in the winter of 1982 with a Soviet tank division. See Elizabeth Pond, "Hints of Soviet Fast-Strike Force Make NATO Think Twice on Europe Defense," *The Christian Science Monitor*, July 10, 1984.

26. See, among others, Mikhail Barabanov, ed., *Russia's New Army*, Moscow, Russia: Centre for Analysis of Strategies and Technologies, 2011; Roger N. McDermott, Bertil Nygren, and Carolina Vendil Pallin, eds., *The Russian Armed Forces in Transition: Economic, Geopolitical and Institutional Uncertainties*, Abingdon, UK: Routledge, 2012.

27. Aleksandr Tikhonov, "'Zapad-2013': Itogi i Vyvody" ("Zapad-2013': Results and Lessons"), *Krasnaya Zvezda*, October 18, 2013.

28. Norberg, p. 42.

29. Officially at one million personnel, the Russian armed forces are probably closer to 750-800,000 men and women in uniform.

30. See "Western Military District," *GlobalSecurity.org*, last modified September 18, 2016, available from <http://www.globalsecurity.org/military/world/russia/vo-western.htm>.

31. Roger McDermott, "'Tsentr' 2015: Testing Mobility and Strategic Messaging," *Eurasia Daily Monitor*, Vol. 12, No. 170, September 22, 2015.

32. Wesley K. Clark, Jüri Luik, Egon Ramms, and Richard Shirreff, *Closing NATO's Baltic Gap*, Tallinn, Estonia: International Centre for Defence and Security, May 2016, p. 13.

33. "Indra-2014, combattre le terrorisme ensemble" ("Indra-2014, Fighting terrorism together"), *Sputnik France*, October 8, 2014.

34. The exercise, which focused on counterterrorism operations in desert terrain under a United Nations mandate, lasted nearly 2 weeks.

35. Notably with the recent Connected Forces Initiative (CFI) which has to ensure, according to Supreme Allied Command Transportation (SACT):

a high level of operational readiness of the forces relying on an ambitious training and exercise programme. CFI has introduced a new dimension in the way NATO approaches Training and Exercises. The aim of CFI is to help reorient our training and exercises towards more demanding, high intensity operations and manoeuvre warfare while capitalizing on the experience gained through recent operational commitments.

“Preparing NATO’s Future Through Ambitious and Complex Training and Exercises Programme,” a message from Commander General Jean-Paul Paloméros, SACT, *The Transformer*, Summer 2015.

36. See “Exercises of the Armed Forces of the Russian Federation.”

37. Andrew Tate, “China, Russia Conduct Large-Scale Joint Naval Exercise,” *Jane’s Navy International*, August 21, 2015. Another exercise was organized in late August 2015 in the Sea of Japan, where the servicemen of the two countries worked out “the issues of joint anti-sabotage, anti-submarine, anti-vessel, and anti-aircraft defense,” according to the Russia’s Eastern MD spokesman. Franz-Stefan Gady, “Russia and China Kick Off Naval Exercise in Sea of Japan,” *The Diplomat*, August 24, 2015. On a more symbolic note, Moscow and Beijing conducted their first computer-assisted missile defense drill in May 2016.

38. “China and Russia to Hold Joint Military Drills,” *The Moscow Times*, May 3, 2016.

39. “Russian Troops to Join 9 Int’l Drills in 2016, Build High-Tech Ranges.”

40. In October 2016, Kyrgyzstan will host the CSTO Rubezh 2016 exercise, involving the participation of Kazakh, Russian, and Tajik troops as reported by TASS, June 30, 2016.

41. As stressed by R. McDermott, the Tsentr-2014 exercises indicated that the Russian leadership considers that collective CSTO forces might not be enough to solve a difficult security situation and that Russian forces might have to act alone. McDermott, "Russia Rehearses Military Intervention in Central Asia."

42. The 2013 Zapad exercises took place from September 20-26, 2013, on the Brest, Gozhsky, and Obuz-Lesnovsky military ranges in Belarus and the Khmelevka and Pravdinsky military ranges in Kaliningrad. During the maneuver, about 70 tanks (including 10 Russian), 60 aircraft and helicopters (40 Russian), multiple rocket launcher systems, 10 ships from Russia's Baltic Fleet, and about 250 other pieces of military equipment were used. Anna Maria Dyer, from Polish Institute of International Affairs (PISM), Warsaw, Poland, written contribution for European Parliament workshop, "Russian military presence in the Eastern Partnership Countries," Subcommittee on Security and Defense, June 15, 2016.

43. "Russia Holds Big Military Drills in South, Crimea, Abkhazia, South Ossetia," RFE/RL, July 7, 2016.

44. Dyer.

45. Speech at the Expanded Meeting of the Defence Ministry Board.

46. McDermott, "Russia Rehearses Military Intervention in Central Asia."

47. In 2013, the only major snap exercise was for the Eastern MD, and the Vostok 2014 exercises (although their size was discussed) were one of the largest-scale in the recent period. This reflects, among other things, the fact that Russia is not constrained by OSCE restrictions in this part of its territory.

48. Nikolai Novichkov, "Russia Conducts Major Snap Exercise in SMD," *Jane's Defence Weekly*, February 11, 2016.

49. The most recent Zapad 2013 exercise was based on elements from Arab Spring events and assumed that “external forces” wanted to destabilize Belarus, but were opposed by the Belarusian Army supported by the Russian Air Force, Army, and Marines (Anna Maria Dyrer). It should be noted, however, that this “color revolution” dimension is absent from other analyses of this exercise (see Norberg, p. 34 and following).

50. Interfax, March 25, 2015.

51. As this was stressed previously, snap exercises in Kaliningrad in December 2014 also involved the deployment of Iskander systems to the exclave.

52. Robert Coalson, trans., “Russian Military Doctrine article by General Valery Gerasimov,” Facebook, June 21, 2014, translation available from <https://www.facebook.com/notes/robert-coalson/russian-military-doctrine-article-by-general-valery-gerasimov/10152184862563597/>. The Russian version of Gerasimov’s original article is available from http://opk-news.ru/sites/default/files/pdf/VPK_08_476.pdf.

CHAPTER 6. THE MOBILIZATION OF RUSSIAN SOCIETY

Ray Finch

Ever since Vladimir Putin's decision to return to the Presidency (September 2011), the Kremlin leadership has adopted a more antagonistic approach toward the West in general and the United States in particular. The Russian leadership appears to believe that the West, the United States in particular, presents a serious threat to the current regime and in response has been taking actions to place the country on a partial war footing.

This chapter examines how the Kremlin leadership has attempted to mobilize Russian society over the past 5 years or so. It will begin by considering their motives and then review some of the more prominent mobilization tools, particularly the Russian media. It will consider the primary barriers to mobilization and the Kremlin's effectiveness up to May 2017, and conclude with two possible implications stemming from this mobilization attempt.

MOBILIZATION RATIONALE

The current Kremlin administration wants the Russian people to believe that their country is besieged from both external enemies (primarily from the West and the United States) and internal enemies (by Western-sponsored opposition forces). According to its narrative, the Western/U.S. strategy is to weaken Russia using every manner of weapon (e.g., information, economic, political, ideological, spiritual, technological, military, etc.). Kremlin leaders contend that the United States is fighting to retain the unipolar global security

model, whereby the United States enjoys a global security mandate. They maintain that the United States has worked diligently since the end of the Cold War to ensure that Russia does not recover its great power status.

Alongside the stated objective of mobilizing against this foreign threat lies the rather mundane goal of remaining in power. These two goals are mutually supporting. As noted Russian scholar Nikolay Petrov put it:

Today, the regime derives its legitimacy not from the bottom up, through elections, but from the top down, by placing the country on a permanent war footing. Putin's role is more like a tsar than the chair of a board. The regime has moved from a hybrid system that still maintained the outward trappings of a democracy to a full-scale authoritarian state, while the shifting balance of power has made the elites more dependent on the president.¹

To carry out this bipolar strategy of challenging the United States and remaining in power, the Kremlin leadership has mobilized Russian society to confront what respected Soviet/Russian military and political affairs analyst Dr. Stephen Blank has referred to as "perpetual war."² Current Russian strategic theory posits that there is no real divide between war and peace. In the Kremlin's realpolitik perspective, countries are always in competition with each other. This is a zero-sum model: where, when one side wins, the other loses.

Purposes of Mobilization

The purpose of any mobilization is to better prepare a country for armed conflict and to deflect

domestic criticism. As operations in Ukraine and Syria have demonstrated, the Russian military has made significant improvements in combat readiness over the past decade. Having achieved some modicum of success in Georgia, Ukraine, and Syria, Kremlin leaders will likely continue to place additional emphasis upon strengthening their armed forces. The improved military capability could translate into a greater willingness to employ force where Russian interests are perceived to be threatened.

A key component of the latest military reform efforts has been the development of a viable military reserve that could be mobilized in the event of war. While there are still problems with fully staffing and equipping this reserve force, the concept and structure of these forces have been established. Besides working out the many military details involved with mobilizing the military for armed conflict, the wider Russian society has also adopted a mobilization mentality. Alongside the rhetoric for greater military preparedness, over the past few years, Russian society has become tempered to the likelihood of future conflict. Indeed, as the ongoing conflicts in Ukraine and Syria have illustrated, many Russians are mentally prepared for war today. The old Soviet perspective of “as long as there is no war” has been replaced by a belief that war is now a viable, and perhaps even an attractive, option.

The consequences of this mobilization-mania are readily apparent. Just a few years ago, it would have been impossible to imagine Russia fighting with its fraternal neighbor in Ukraine. While the Kremlin has largely been able to mask and camouflage its direct military involvement, recent polls have indicated that almost half of Russians now view Ukraine as a threat.³

Their ability to mobilize the Russian information space and transform a friendly neighbor into a mortal threat was also apparent after Turkey shot down a Russian aircraft (which had violated Turkish airspace) in November 2015. Almost overnight, the Kremlin-supported Russian media began a full-scale information blitz against Turkey, altering what had once been a decent relationship into one verging on open hostilities. The information pendulum was pushed back in the friendly direction in 2016 once the Turkish authorities made overtures toward apologizing for downing the Russian aircraft.

Methods of Mobilization

Over the past decade, there has been a significant increase in military and patriotic education for Russian youth. From an early age, Russian children now have the opportunity to learn soldierly fundamentals. The Kremlin uses the school system as a platform for delivering the message that enemies throughout history have besieged their country and that survival depends upon maintaining strong and robust military forces.⁴

In addition to formal school instruction, the Kremlin has been dusting off old Soviet tools for mobilizing youth (e.g., resurrecting the “Ready for Labor and Defense” government program).⁵ Alongside the stated goal of improving the physical fitness of young Russians, there is a not-so-subtle message that young people must be prepared to defend their country. In May 2016, the Kremlin introduced another new program (*Yunarmiya* or Young Army) to instill patriotic ideals among young Russians (ages 10-18). The inaugural Young Army event held at Patriot Park outside of Moscow was attended by 500 delegates from

85 regions of Russia. At the time of this writing, this new program will soon be fully implemented throughout the country and it will consolidate the more than 5,000 existing organizations, which deal with instilling a sense of patriotism and military discipline among the younger generation.⁶ Such a movement will also help to ensure that Russian youth remain loyal to the Kremlin. The Young Army ranks were on display for the first time during the 2017 Victory Day parade in Moscow.⁷

The Russian Orthodox Church has also been enlisted to help with the mobilization effort, providing both a spiritual blessing and ideological basis for the Kremlin's defense efforts against the materialist and sinful West.⁸ This is an important aspect of the mobilization effort. Few young Russians may be prepared to fight and die for the Putin regime, but many more may be willing to fight and die for some divine promise.

Another tool in the mobilization toolbox has been the creation of the *Obshcherossiiskii narodnyi* (all-Russia people's front [ONF]). This is not a political party per se, but more like a mobilization force for those who want to improve Russia. According to its charter, the ONF's goal is "promotion of unity and civil solidarity in the name of Russia's historical success; the country's development as a free, strong and sovereign state with a robust economy; fast economic growth; and reliance on the family."⁹

There is a host of other methods that the Kremlin uses to help increase defense awareness. Russians can now visit Patriot Park, located just west of Moscow (see figure 6-1). This is a huge complex (almost 66 square kilometers [km]) that boasts tank grounds and airfields, as well as a number of educational-military clubs, areas for paintball games, concert halls, and

campgrounds for tourists.¹⁰ Instead of shaking Mickey Mouse's hand, youngsters can check out the Kremlin's latest weapons. There is a host of other, more subtle means (sporting events, fashion, and advertising) to promote military awareness.



Source: Government of the Russian Federation.

Figure 6-1. The opening of Patriot Park near Moscow, June 2015.¹¹

The primary weapon in the Kremlin's mobilization arsenal, however, has been its indirect control over the major media outlets. One might argue that the most significant achievement of Putin's reign over the past 16 years has been the consolidation of major Russian media under Kremlin control. Regarding specific policies (e.g., Ukraine, Syria, or the refugee crisis in Europe), the major Russian media outlets all parrot government propaganda.¹² This is especially true for the three major Russian television (TV) stations, which remain the chief conduit of information and entertainment for the majority of Russians.

This control over the media has allowed the Kremlin to portray its message in a consistent, persistent, coordinated, and largely one-sided manner. It uses morning talk shows, call-in radio, magazines and newspapers, evening TV news programs, and documentary films that are then cut and pasted across much of the Internet. This mass media control results in a 24/7 highly professional media saturation that has proven to be very effective. Unless the average Russian media consumer makes an effort, he or she has hardly ever been exposed to a perspective that deviates significantly from the approved Kremlin viewpoint.

Besides using daily news programs to drive this message home, over the past decade, the Kremlin-sponsored media has developed an untold number of TV and radio talk shows where “experts” discuss and explain what is really happening in the news.¹³ These programs are an interesting mix of propaganda, analysis, entertainment, and discussion, often designed less to inform than to incite emotions and provoke indignation. These highly professional television and radio programs have helped craft a narrative whereby the West/United States is always out to weaken Russia, while the Kremlin leadership remains above reproach.

One indication as to the effectiveness of the Kremlin’s mobilization effort deals with the question as to who is responsible for the downing of MH-17 over Ukraine in July 2014. Because of its media saturation, the majority of Russians polled believe Ukraine or the United States was responsible for this tragic crime.¹⁴

Besides creating a television station dedicated to covering every facet of Russia’s armed forces, the Kremlin has also developed a number of military-themed programs on regular TV and radio stations.¹⁵ These programs drive home the point of mobilizing for future battle.

Barriers to Mobilization

Despite the efforts of the Kremlin leadership, there are a number of barriers that have thus far thwarted their efforts to mobilize the country fully for war. First, there is the typical Russian *bardak* (the general inefficiency of Russian society, literally “whorehouse”). Some of this may stem from the average Russian’s deep skepticism toward those in leadership positions. While the Kremlin has tried to recover from the humiliations of the 1990s, many Russians still harbor doubts that the country’s leadership is genuinely concerned with the welfare of the people. These doubts may escalate as costs mount.

Second, Russia’s endemic corruption continues to retard the mobilization effort. While the popular image of Putin’s power vertical suggests strict accountability, the reality is far different. Based on experience, probably 25-40 percent of what is allocated toward mobilization is siphoned off into personal accounts through various corrupt schemes. Mobilization, like patriotism, often remains the last refuge for scoundrels.

Somewhat related to corruption are the economic strains resulting from depressed fossil fuel revenues and Western sanctions. Although Western sanctions have helped to consolidate the wider Russian society, the Kremlin’s plan to modernize the military with 70 percent modern equipment by 2020 will likely have to be pushed back a few years.

The fourth factor might be labeled the “general decency” of the Russian people. Despite the shrill, bellicose rhetoric of their media, many Russians are still capable of thinking for themselves. Those connected to the Internet have access to other sources of information. This is especially true of the younger generation

in Russia, who are increasingly turning away from Kremlin-sponsored TV toward other digital sources.

Finally, there may be questions as to the degree to which the Kremlin truly wants to mobilize society. Does it actually want to inspire citizens to volunteer and act independently or does it prefer to placate the passive and apathetic?

By one measure, the effectiveness of the Kremlin's mobilization effort has been outstanding. Putin's approval ratings remain at the highest levels, and he won the 2018 election without much effort. Anger and ill feeling toward the United States remain robust, and a majority of the Russian population holds negative views toward America.¹⁶ Moreover, this same majority regards the United States as the primary threat to their country. Similarly, fewer Russians are willing to listen to Western criticisms regarding the direction their country is taking, although Kremlin statistics measuring the level of popular support ought to be viewed with skepticism.

Nevertheless, this mobilization effort has had a couple of negative consequences. Having been whipped into an emotional frenzy by the never-ending "two-minute hate sessions," aggression, fear, and paranoia are becoming more commonplace in Russian society. Every day, average Russians are told that foreign and domestic enemies are working to undermine their safety, stability, and well-being. In such a poisonous atmosphere, any criticism of the authorities is interpreted as treason; hence, although down deep Russian citizens may suspect that they are being manipulated and lied to, many of them not only remain silent but also begin to echo the Kremlin line to prove their loyalty.

CONCLUSION

Over the past half-decade, the Kremlin leadership has not only been mobilizing the consciousness of Russian society for the eventuality of conflict, but it also has taken concrete actions to improve the readiness and combat capability of its various armed forces. With each passing month, as the Kremlin continues to manipulate the information space, a significant percentage of the Russian Government, power ministries, and people are growing more hostile toward the West in general and the United States in particular.¹⁷ Deteriorating economic conditions within Russia have exacerbated this hostility. Strengthening its political legitimacy via this mobilization-mania, the Kremlin leadership may be increasingly tempted to demonstrate its ability to protect the motherland from what it views are the “sinister plans” of the North Atlantic Treaty Organization (NATO) and the United States.

Where this will lead, nobody knows. Here are two observations suggesting either a positive or a negative direction. The positive scenario comes from the tail end of Putin’s televised “direct-line” discussion with the Russian people in mid-April 2016, where, toward the end of the performance, an 8-year old called with the following question:

My name is Alina, and I am in first grade. Could a woman become president of our Russia? Because daddy says that only Putin can deal with America. (applause)

Putin’s response:

Alina, we should not focus on how to deal with America. We have to think about how to deal with our domestic affairs and problems, our roads, our healthcare, education,

how to develop our economy, restore it and reach the required growth pace. If we do all this, we will not have to deal with anybody because then—only in this case—we will be invulnerable people with bright prospects who want to live in this country and are proud of it. As for a woman president, maybe a woman would do best at tackling these problems.¹⁸

The second scenario reflects a more negative direction and comes from Russian historian Leon Aron, who warned:

the present Russian regime, which cannot modernize and for which a modicum of institutional reform might prove fatal to its hold on power, has staked its legitimacy on patriotic mobilization. Putin has saddled this tiger with remarkable ease and had it trot steadily. Yet among the many dangers of such a ride is the necessity of feeding the beast with an ever increasing supply of fresh meat, the bloodier the better. . . . Victory (or, more precisely, victories large or small in the imagined war with the West) has become the foundation of political survival and thus must be pursued relentlessly.

Aron concludes, “This might not end well.”¹⁹



Source: Government of the Russian Federation.

**Then-Prime Minister Putin Shows Journalists a
2-Month-Old Siberian Tiger Cub He Received for
His Birthday, October 2008.²⁰**

ENDNOTES - CHAPTER 6

1. Nikolay Petrov, "Putin's Downfall: The coming crisis of the Russian regime," London, UK: European Council of Foreign Relations, April 19, 2016, available from www.ecfr.eu/publications/summary/putins_downfall_the_coming_crisis_of_the_russian_regime7006, accessed May 11, 2016.

2. Stephen Blank, "Russia's Hybrid War: Through a Glass Darkly," Intersection, April 14, 2016, available from <http://>

intersectionproject.eu/article/security/russias-hybrid-war-through-glass-darkly, accessed May 11, 2016.

3. According to a May 2016 poll conducted by the Russian Levada Center, 48 percent of Russians now view Ukraine as a threat. For more details, see: Elena Mukhametshina, "Russian Residents Believe that the United States, Ukraine and Turkey are Their Main Opponents," *Vedomosti*, June 2, 2016, available from <https://www.vedomosti.ru/politics/articles/2016/06/02/643351-rossiyane-reshili-im-vragi>.

4. Ilya Rozhdestvensky, "Russia's littlest soldiers: How the government teaches kids to love the Motherland and to fight for it," *Meduza*, July 16, 2015, available from <https://meduza.io/en/feature/2015/07/16/russia-s-littlest-soldiers>, accessed May 13, 2016. For a more general analysis, see Sergei Golunov, "Patriotic Upbringing in Russia: Can It Produce Good Citizens?" *PONARS Eurasia Policy Memo*, No. 161, Washington, DC: Elliott School of International Affairs, George Washington University, September 2011, available from www.ponarseurasia.org/sites/default/files/policy-memos-pdf/pepm_161.pdf.

5. "Putin Signs Off on Return of Soviet Fitness Standards," *The Moscow Times*, October 6, 2015, available from <https://themoscowtimes.com/news/article/putin-signs-off-on-return-of-soviet-fitness-standards/537259.html>, accessed May 13, 2016.

6. Yevgeniya Ruchkina, "The Young Army Is Not the Army: Sergei Shoigu Promised to Make Young Russians 'the Strongest, the Most Intelligent and Worthy'," *Moskovskiy Komsomolets*, May 29, 2016, available from <http://www.mk.ru/social/2016/05/29/yunarmiya-ne-armiya.html>, accessed May 21, 2017.

7. Daniel Schearf, "Putin's Youth Army Debuts on Red Square for 'Victory Day'," *VOA News*, May 8, 2017, available from <http://www.voanews.com/a/russia-putin-youth-army-yunarmiya/3842885.html>, accessed May 20, 2017.

8. For a detailed study on how the Russian Orthodox Church has helped with the mobilization effort, see Vera Zakem, Paul Saunders, and Daniel Antoun, *Mobilizing Compatriots: Russia's Strategy, Tactics, and Influence in the Former Soviet Union*, Occasional Paper Series, Arlington, VA: CNA, November 2015,

available from https://www.cna.org/CNA_files/PDF/DOP-2015-U-011689-1Rev.pdf, accessed May 13, 2016.

9. For more information on the *Obshcherossiiskii narodnyi* (all-Russia people's) front (ONF), see Tatiana Stanovaya, "The All Russia People's Front: A party with no power?" *Intersection*, February 12, 2016, available from <http://intersectionproject.eu/article/politics/all-russia-peoples-front-party-no-power>, accessed May 13, 2016.

10. Alec Luhn, "Here's What You Can Do at Russia's 'Military Disneyland'," *Vice News*, June 17, 2015, available from <https://news.vice.com/article/heres-what-you-can-do-at-russias-military-disneyland>, accessed May 13, 2016.

11. Press Service of the Government of the Russian Federation, "Russian International Military-Technical Forum-Army-2015," *Government.Ru*, June 19, 2015, available from <http://government.ru/news/18545/>.

12. Much has been written over the past 15 years to describe this process. For a recent example, see Maria Snegovaya, "Russia," in *International Forum for Democratic Studies, Stifling The Public Sphere: Media and Civil Society in Egypt, Russia, and Vietnam*, Washington, DC: International Forum for Democratic Studies, The National Endowment for Democracy, October 14, 2015, pp. 26-36, available from <https://www.ned.org/stifling-the-public-sphere-media-and-civil-society-in-egypt-russia-and-vietnam/>, accessed May 13, 2016.

13. The list of these programs is long and continues to expand. Some of the most popular are "Sunday Evening with Vladimir Soloviev," "Pravo Znat," "Moment Istiniy," "Politika," and "Pravo Golosa."

14. Nick Robins-Early, "Few Russians Believe Separatists Shot Down MH17," *Huffington Post*, October 15, 2015, updated October 16, 2015, available from http://www.huffingtonpost.com/entry/mh17-russian-missile-investigation_us_561faff3e4b0c5a1ce622a7b, accessed May 13, 2016.

15. Again, the list is long, and besides the Zvezda television station dedicated to covering military topics, there are programs

like "Armeiskiy Magazine," "Voennoye Taina," "Genstab," "Voennoye Review," and "Voennaya Programma A. Slatkova."

16. Andrei Kolesnikov, *Russian Ideology after Crimea*, Moscow, Russia: The Carnegie Moscow Center, Carnegie Endowment for International Peace, September 2015, available from http://carnegieendowment.org/files/CP_Kolesnikov_Ideology2015_web_Eng.pdf, accessed May 13, 2016.

17. For relatively recent poll data, see Alexander Sergunin and Valery Konyshchev, "SWOT Analysis of U.S.-Russian Relations," *Russian Analytical Digest*, No. 178, January 11, 2016.

18. "Direct Line with Vladimir Putin," Kremlin.Ru, April 14, 2016, available from <http://kremlin.ru/events/president/news/51716>, accessed May 13, 2016.

19. Leon Aron, "Putinology," *The American Interest*, Vol. 11, No. 1, July 30, 2015, available from <http://www.the-american-interest.com/2015/07/30/putinology/>, accessed May 13, 2016.

20. Press Service of the Government of the Russian Federation, "Vladimir Putin showed journalists a Siberian tiger cub he received for his birthday [Image 5 of 9]," Archive.Government.Ru, October 10, 2008, available from <http://archive.government.ru/eng/docs/2102/>.

CHAPTER 7. MODERNIZATION VERSUS MOBILIZATION

Aleksandr Golts

The role played by the Russian Army in the seizure of Crimea, the so-called hybrid war in the Donbass, and the intervention in Syria raises questions about the consequences of radical military reform. The main success of the Russian armed forces was achieved within a few days after February 26, 2014, when President Vladimir Putin had ordered a “snap inspection” of the Russian armed forces.¹ Probably, the Russian General Staff (contrary to Putin’s assertion that no one was going to fight in Crimea) raised the possibility of resistance of Ukrainian units on the Peninsula and could not exclude that Kiev would try to provide them with military support. Therefore, the concentration of Russian forces on the border was originally intended to hamper Ukrainian forces, not to allow access to Crimea through them.

Under the guise of “snap inspections,” the troops of the Western and Central Military Districts, the Airborne Troops, the Troops of Aerospace Defense, Military Transport Aviation, and Strategic Air Forces were deployed. According to Defense Minister Sergei Shoigu, those snap inspections included 150 thousand troops.² Then-Commander of North Atlantic Treaty Organization (NATO) allied forces in Europe U.S. General Philip Breedlove stated that Russia managed to deploy 30,000-40,000 troops on the Russian-Ukrainian border.³ According to the *Vedomosti* newspaper, the battalion tactical groups on the border with Ukraine were formed by 4th Tank (*Kantemirovskaya*) and 2d Motorized Rifle Divisions (*Tamanskaya*), 76th Air Assault

Division, the 31st Airborne Assault Brigade, the 106th Airborne Assault Division, and the 23d Motorized Rifle Brigade.⁴ The Russian General Staff was able to accomplish in the next 2 to 3 days the hidden movement of these units and their operational deployment. According to Shoigu, command and staff structures of the three military districts and the four ground armies took part in this sudden inspection.⁵ The same massive deployment was repeated in the fall of 2015 during military exercises Tsentr-2015. These maneuvers consisted of testing a full-scale invasion in the state where civil war had happened. An airborne division and ground army with sufficient air support conducted the invasion.⁶ Exercise organizers did not hide that the main goal was to prepare troops for a possible ground operation in Syria or Central Asia.

Thus, the ability for rapid decision and then for rapid deployment is an indisputable achievement of the Russian armed forces. It appears that these achievements are far more serious than the “hybrid war” that Russia conducted in Donbass and even the war it wages now in Syria. It is appropriate to recall that when the second Chechen war began in 1999, it took more than 2 weeks to start the deployment of federal troops when armed gangs invaded the territory of Dagestan.

Strategic mobility (readiness to proceed with the execution of combat tasks in a few hours after receiving the order) of 30-40 elite units was the main result of the military reform, which took place in Russia from 2008 to 2012. Probably the announced figure of 150,000 soldiers that took part in the so-called snap inspection was seriously overstated. However, they were enough to immobilize the forces of the Ukrainian Army, and to deprive it of any opportunity to oppose the annexation of the Peninsula. It should be noted that, because of the

reform, Russia today has a military potential which can provide absolute military superiority, if not in Europe then certainly on "the post-Soviet space."

The Kremlin could not even dream in the 1990s of armed forces that suddenly gained efficiency. Those forces then became the material basis in attempts to prove to the people that Russia is a besieged fortress. For the past few years, Moscow's policy toward the West has been a parody of military deterrence. The Kremlin pretended to believe seriously that Russia's security depends on whether it can obliterate half of the world if Russia were to incur an initial U.S. nuclear strike. The "deterrence-parody game" has given Putin a way to verbalize his standard discontent against the United States, which, he believes, is plotting a "color revolution" against Russia. It looked most suitable for the Russian authorities to verbalize its complaints in military terms. After former Defense Minister Anatoly Serdyukov's reforms, the parody game became a reality.

After defeating Georgia in 2008, the Russian military and political leadership realized that, despite the annual growth of the military budget by 20 percent within 9 years, the armed forces were still ineffective. If the enemy had been even slightly stronger, all could have ended with defeat. This fact gave impetus to the most radical military reform in 150 years. Former Defense Minister Serdukov managed to fulfill this gigantic task. It was not a secret to Russian authorities what was wrong with the armed forces. Putin described the problem in an address to the Federal Assembly in 2006 when he recalled the circumstances surrounding the beginning of the second Chechen war:

In order to effectively repel the terrorists we needed to put together a group of at least 65,000 men, but the combat ready units in the entire army came to only 55,000 men, and they were scattered throughout the entire country. Our armed forces came to a total of 1,400,000 men but there wasn't enough men to fight. This is how kids who had never seen combat before were sent in to fight. I will not forget this ever. And it is our task today to make sure that this never happens again.⁷

In his article in *Rossiiskaya Gazeta* (2012), Putin was even more explicit. Describing the military legacy he inherited from the Soviet era, Putin wrote about the inability of a mass-mobilization army to meet 21st century security threats. "There was only one way out," Putin emphasized. "We had to build a new army."⁸ In October 2008, Serdyukov announced that a project named "Perspective look of the Armed forces of the Russian Federation and priority measures for its formation in the years 2009-2020" would be realized in the next few years. Although the authors of the project avoided the word "reform," it was actually a plan for the fundamental reform of all military systems. Under this reform, 135,000 of 355,000 officer positions were eliminated, and all skeleton units were closed in the Army. As a result, their numbers in Ground Forces were reduced by a factor of 11. Of the Army's 1,187 units, only 189 remain today. The scale of the reductions (as it stands now, at the time of this writing, one-third of the officers of the armed forces have been dismissed) was such that it had become clear that, contrary to official statements, this had nothing to do with euphemisms such as "optimization" or "giving the armed forces a new look."

Another important trend of military reform is the organizational change in the armed forces. Ground

Forces transferred from division chain to brigade structures. Six military districts were reorganized into five joint strategic commands (“West,” “East,” “Center,” “South,” and “North”), which include now not only units of Ground Forces but also Air Force and Navy units. This restructuring was the first attempt to implement the requirements of joint operation theory and practice.

The main achievement of this first, quantitative, stage of reform was the rejection of the mass-mobilization armed forces model. Serdyukov was able to understand that the main weakness of the Russian Army was the intention to implement the concept of mass mobilization. The elimination of reduced-personnel units and the dismissal of surplus numbers of officers meant that the Russian political leadership had decided to abandon the idea of mass mobilization for good. Not long ago, defending the country in the event of aggression meant mobilizing 4 to 8 million reservists;⁹ today, the Army, according to their former commander in chief of Ground Forces, Vladimir Boldyrev, plans to deploy only 60 brigades (about 300,000 people) of reservists.¹⁰ According to former chief of the General Staff Nikolai Makarov, in the event of war, 700,000 reservists are to be mobilized.¹¹

Nearly 60 brigades were created in the Ground Forces instead of 23 infantry and tank divisions. The *Tamanskaya* and *Kantemirovskaya* divisions were returned to the divisional structure. The old structure was also kept for a very specific machine-gun and artillery division in the Far East and 17 separate regiments. Serdyukov wanted to leave only permanently ready units in the armed forces, namely those that were fully manned, equipped with serviceable weapons systems, and able to perform a combat order immediately. It

was reported that all “skeleton units” (more than 70 percent of the total number of units in the Ground Forces) had been dissolved.

In fact, this was the only way to realize “a new look.” The Kremlin had to abandon the complete concept of mass mobilization adopted for Russia in the 1870s. According to that concept, in the event of a military threat, millions of reservists—almost the entire male population of the country—should be mobilized. To be ready for such emergency mobilization, the state had to have at its disposal millions of trained reservists. That is why hundreds of thousands of conscripts had to pass compulsory military service each year. The armed forces had to keep extra numbers of officers who had to command the battalions and regiments of reservists. Thus 70 percent of all units were “skeleton units,” consisting of command structures (together with full officers’ staff) and stockpiles with weapons and ammunition. This concept could not be efficiently maintained after the collapse of the Union of Soviet Socialist Republics (USSR). Russia is rapidly falling into the “demographical hole.” The young men who could begin their service in 2020 have already been born, and their numbers cannot change. In 2011, the country had 648,000 18-year-olds; in 2012 662,000; in 2013, 641,000; in 2014, 613,000; in 2015, 592,000; and so on, in descending order.¹² The number of 18-year-olds will begin to increase slightly only in 2022-2023. This population decrease means that any plan for the structure of the armed forces should (though it is far from certain that it will) consider the growing shortage of the male population in the most productive age range, between 18 and 30 years old. At the same time, the military industry would be unable to arm millions of reservists.

The former commander of the Airborne Troops General Vladimir Shamanov explicitly acknowledged the fact that this mobilization concept had been hopelessly outdated:

The forms and methods of armed struggle have radically changed since World War II. Now it allows us to get rid of [a] huge number of “skeleton units” without compromising the defense capability of the state. Let’s call a spade a spade: regiments and divisions that were intended to accept so-called “mobilization resources” and deploy them during a period of military threat have become a costly anachronism. With the advent of nuclear weapons, the wars with the positional confrontation of multimillion armies were gone and buried! But the maintenance of useless ‘skeleton units’ became the burden for military budget. That’s why we can’t solve a range of vital problems. . . . We need to create relatively compact, numbering no more than 200 thousand rapid reaction force with highest combat potential. It will be mobile, perfectly trained troops which are constantly ready for combat use at every existing theater of war.¹³

Thus, the government tried to undertake a very radical change in the entire system of military organization and military build-up. In fact, however, it stopped on the quantitative phase.

Under these circumstances, it would be logical to expect a phasing out of the draft and a gradual transition to the formation of voluntary armed forces. When the number of reservists makes up about two-thirds of the size of the Army in peacetime – which is characteristic of voluntary, but not conscription-based, armed forces – the draft simply does not make sense. If, in the event of military action, only 700,000 reservists are to be called to duty, and no conscripts will be called, then why should the state need to spend a large amount

of resources on training more than 300,000 conscripts each year?

Defense Minister Sergei Shoigu has set the task to recruit 495,000 contract soldiers by 2020.¹⁴ However, the draft will remain, but will not exceed 10 percent of the declared million-man size of the armed forces. It will be a voluntary force: only those who are planning to become a professional soldier will have to pass conscription. However, authorities do not want to give up the opportunity to have 300,000 conscripts in the armed forces each year. The attempt to conserve the draft confronts the concept of permanent readiness directly. It is clear that if the 1-year term of service by draft is retained, the combat capability of the Russian Army will be highly doubtful.

The repudiation of the mobilization concept demanded a transition to a fundamentally new level of training of personnel. It was necessary to reform the entire system of military education radically, to abandon the old procedure of the officers' service, and to establish an institution of professional junior commanders. Serdyukov and his subordinates reasoned quite efficiently on these issues. The reformers have finally realized that Russia's military academies have not been training professionals but low-skilled technicians who were only needed in a mass-conscription army. The educational process in most academies was designed to give the future officer only as much knowledge as is necessary to master one or two specific types of equipment.

At the same time, it was stated by Serdyukov's subordinates that the need for officers had reduced sevenfold and the armed forces needed only about 8,000 lieutenants each year. In these circumstances, it was possible to improve the quality of military education.

It was announced that the Russian Army officers would receive only one higher education, rather than several as before. The number of defense educational institutions was reduced to 17. This included the 3 military educational and scientific centers of Russian armed forces, 11 military academies, and 3 military universities.¹⁵

In military training centers, officers of the armed forces had to receive a fundamental education in the humanities and sciences. The former allows commanders to understand their place in a rapidly changing world and to take responsibility for their subordinates, whereas an education in the sciences enables them to learn any modern weapons system. The system of career advancement and the procedure for appointment to senior positions have to become competitive and transparent. A system of continuous education has been developed for officers, as advancing through the ranks is no longer based solely on seniority but also on qualifications. A soldier competing for a higher position knows that preference is given to the person who has attained a higher qualification and achieved success in the preparation of his or her units and subunits.

After Serdyukov's dismissal, this part of reform was reversed. The Defense Ministry decided to retain a number of military academies as independent educational institutions such as: the Mikhailovsky Artillery Academy; the Military Academy of Air Defense; the Academy of Air-space Defense; the Academy of Radiation, Chemical and Biological Protection; among others. It was decided that the Russian military would keep 18 military academies and universities and 15 branches. Shoigu considered it necessary "to return to the branches the status of independent educational organizations, to recreate historical typology of

military higher educational institutions: academies, universities and schools."¹⁶ Can anyone seriously expect that 33 military academies scattered throughout Russia will provide a high level of military education and training? The military-educational institution, controlled in Serdyukov's times by the Department of Education of the Ministry of Defense (MoD), is now subordinate to appropriate main commands of the armed forces. Solving their bureaucratic tasks, military officials are not interested in giving the cadets fundamental knowledge and practical skills. This surely will lead to a return to the old, essentially Soviet, scheme of military education: the Military Academy of the General Staff of the Armed Forces.

It is not an accident that the Russian MoD refused to continue the reform of military education. It is impossible to imagine that educated, independent, and self-confident officers will be happy to serve in the armed forces of contemporary Russia. It is unlikely they will be happy with the current system, in which the officer must perform all, even criminal, orders or risk meeting the tribunal. Therefore, the existence of these educated and trained officers could be very uncomfortable for the current government. The situation looks critical if one takes into account that the Kremlin has listed the so-called color revolution as a new type of warfare.¹⁷ It is clear that the government intends to use the armed forces within the country in case of public unrest. In this case, authorities will need, not educated, but loyal officers.

The Defense Ministry returned to the former policy of "expanded reproduction" of poorly educated officers. It is clear that all military schools will try to prove their importance and increase the number of students.

Many graduates from 2009 to 2012 had to occupy sergeants' positions by the end of 2014.¹⁸ The number of officers will also rise because of the governmental decision to extend their service for 5 years. It is clear that senior officers—majors and lieutenant colonels—are the first who are interested in such an extension (and those are the ones reformers wanted to get rid of as quickly as possible). Head of Personnel Department of the Ministry General Viktor Goremykin reported that more than 26,000 officers asked for a service extension, and their number is likely to grow.¹⁹ The rising numbers of officers' corps would return the military organization to the mass mobilization concept.

Something similar happened with the system of staffing the armed forces with reservists. At the end of 2008, it was announced that for the first time in Russian history, members of the military reserve would become paid and voluntary. Reservists had to be assigned to separate special units that had to be under the command of a military district. The Russian generals decided to reduce the idea to absurdity. They proposed to undertake the next "experiment," that would recruit only about 5,000 soldiers and officers as potential reservists. If it is to be successful, the number of reservists will grow to 8,000. This is about two brigades only. The Ground Forces need 60 brigades of the reserve. It means that 58 brigades have to be formed by so-called mobilization resources, which includes all of the male population of the country as it had been in Soviet times. It is clear that the real goal of the "experiment" started in 2014 is to compromise the idea of modernizing the system of reserve organization.

In the near future, Shoigu has to solve two inter-related problems. First, he is obliged to perform an order of Putin that is impossible to perform: to form

1,000,000-man armed forces—at the time of this writing, the armed forces number 920,000 troops, according to official statements—even though the demographical situation cannot permit it. Second, the Minister must finally choose the system of staffing of the armed forces. It seems Shoigu does not want to give up the obvious achievements of Serdyukov’s reform, but at the same time, he wants to escape direct conflict with conservative military top brass.

In 2013, Putin, fully supported by Shoigu, offered a system of military service for students that permitted them to fulfill their conscript obligations without leaving their educational universities. According to this initiative, students would devote 1 day a week during 1½ or 2 years to military training. Upon completion of the course, they would attend 3 months of camp training. Then they would become privates or sergeants in the reserve without active service. Shoigu tried to convince students quite sincerely:

We want you to think of this as a really good opportunity to learn without leaving the educational process. And for this purpose we will create special training centers. . . . In a year we need to get the reserve from 80 to 100 thousand people.²⁰

He had his own interest. The MoD could receive a chance to draft tens of thousands of students as troops and formally bring the number of troops to 1 million. However, this initiative did not suit the generals. Military commanders do not need “paper,” but real soldiers. Because the number of “active” troops determines the number of generals, the military brass started to sabotage Shoigu’s idea. According to the original plan, 58,000 students were supposed to be trained under the

new system in 2015. In reality, only 15,000 participated the next “experiment.”²¹

As an experienced politician, Shoigu very skillfully maintains a balance between “liberal” military reform and the basic principles of the current government, which is that great powers have a standing army of less than a million. As a result, the reform was launched, but it turns out that it clearly contradicts the “ideological foundation” of the state built by Putin. Thus, conservative military elites preserve opportunities to return to the old mass-mobilization system. It is important to note that all strategic military exercises up to Tsentr-2015 included training on mass mobilization. Now representatives of local and regional administrations have to take part in the training.²² Furthermore, the military doctrine adopted in 2010, in the midst of Serdyukov’s reforms, was not much different from the previous doctrine on mobilization preparation. A new version of the military doctrine adopted at the end of 2014 was still full of paragraphs on mobilization preparation. It can be concluded that if the concept of mass mobilization was abandoned, the Russian Government still retains the possibility to return to it.

It can also be presumed that one day the Kremlin will feel dissatisfaction with the abilities of its armed forces. The Russian Government was so assured of the effectiveness of the reformed Army that it wanted to put before it tasks that cannot be fulfilled. In March 2014, the Kremlin had to refuse to repeat in the South-east of Ukraine the Crimean scenario. It was relatively simple to cut Crimea off from the rest of Ukraine by controlling the highway and railway through the Isthmus of Perekop. However, the Donetsk and Lugansk regions could not be dealt with in the same way. Here, Russian troops would have had to establish “state”

borders where they had previously never existed. Hundreds of roads linking the area with the rest of Ukraine would have had to be blocked. Something like this cannot be done in a secret operation, or even a covert invasion, but would require the establishment of traditional checkpoints on all reasonably important lines of communication and provide the ability to prevent troops arriving from the rest of Ukraine. Even if the Kremlin has indeed been able to concentrate about 40,000 troops on Ukraine's borders, more than twice that number would be needed for an occupation.

Even now, when the units of constant readiness have to place only the battalion tactical groups on the Ukrainian border, there is a shortage of personnel which is increasingly difficult to fill. Not accidentally, when in February 2015 separatists tried to capture the important strategic railway junction Debaltsevo, the Russian command had to throw at Ukraine a tank battalion from Buryatia.²³ Ironically, the Russian armed forces over the last few years was built on the model once proposed by Colin Powell – troops needed to be used in a massive advance for a short time and had to be withdrawn immediately after they gained the victory. The “hybrid” war in Ukraine imposes other requirements. Russian military leaders were faced with the necessity to increase the number of troops and keep them there for a rather long period. However, the number of professional soldiers is limited. In this case, they should send conscripts to the border. This decision would limit strategic flexibility.

Moreover, the secret operation in the Donbass has caused serious damage to discipline and morale. In an attempt to hide its losses, the commanders of the armed forces staged “secret” funerals for those who had been killed during the operation. The military officials

claimed that Russian troops reported to be fighting in Ukraine were just there on vacation. It is well known that a soldier, going on vacation, is obliged to write a report to specify the place of intended rest.

However, a soldier of the regular Army is not the member of a special unit of the Russian security services. A regular Army soldier, by contract, is obliged to protect the homeland, and not to be engaged in secret operations on foreign soil. Morality and discipline in the Army are based on quite different principles than in the security services. For example, they are based on full confidence in the commander, who is fully responsible for the lives of subordinates. Now it turns out that the commanders of the elite units of the Russian armed forces were trying to evade responsibility for their orders. It is more than doubtful that hundreds of thousands of Russian troops and their relatives are ready to give the government such a right. The MoD has set an ambitious task to recruit 50,000 contract soldiers per year. It seems that the participation of the Army in covert operations did turn many away from wanting to become a military professional.

The contradictions can be found in the Russian operations in Syria. The armed forces have demonstrated a record time of deployment. On September 24, 2015, the Russian authorities strongly denied the possibility of using troops in Syria. However, on September 30, the aircraft, which were transferred secretly to the base in Latakia, made their first strikes. The speed of the Russian response after November 24, when Turkish fighter jets had shot down a Russian Su-24 bomber, looks even more impressive. On November 26, the most modern anti-aircraft systems S-400 were deployed on the base. This higher speed of deployment is possible because the most important military

decisions are made by a single person—Putin. He has no need to negotiate with the Russian Parliament. The Council of Federations spent just minutes to approve the decision that allowed Putin to use military force in Syria. He did not need to consult with allies. Thus, launches of cruise missiles by ships of the Russian Caspian Flotilla were an unpleasant surprise to the leaders of Kazakhstan.

However, the lack of any checks and balances inevitably increases the possibility of strategic mistakes, when the speed of decision making does not make it possible to consider all effects of the decision. The loss of passengers on a commercial plane blown up by terrorists over Egypt and the deaths of the airmen in a Su-24 bomber was the price Russia paid for a rapid deployment to Syria.

The plans to counter NATO could put an end to Serdyukov's reforms. According to his successor Sergei Shoigu:

the Defense Ministry is taking a number of measures to counteract the buildup of NATO forces in the immediate vicinity of Russian borders. Two new divisions will be set up in the Western Military District and one division in the Southern Military District until the end of the year.²⁴

It was reported earlier that a new motor rifle unit would be set up near Rostov-on-Don and two more divisions in the Smolensk and Voronezh regions.

However, the creation of new divisions most likely will not strengthen, but damage the combat capabilities of the Russian Army. In their militaristic euphoria, Russian leaders began to set before the Army new, more large-scale goals. First, there is the task of a military confrontation with NATO. However, the number of units is too small to plan seriously any operation against a global adversary. Therefore, the MoD began

to set up new divisions. This military build-up is not limited to three divisions, per the Defense Minister.

Previously, Shoigu reported that about 30 new formations had been set up since the beginning of 2015 in the Western Military District.²⁵ At the end of November 2015, he also mentioned that more than 15 units had been formed in the Southern Military District by that time, and the formation of 2 units was in the final stages.²⁶ If one were to believe the publication of the *Nezavisimoye Voennoe Obozrenie*, “eight new major operational formations, more than 25 divisions (combined arms, Air Force, air defense, Navy), [and] 15 brigades” appeared in 2016.²⁷ The Western Military District had been reinforced with a newly formed 1st Tank Army, headquartered near Moscow.²⁸ “A senior source in the General Staff told TASS that the 20th general purpose Army in the district had to be created from scratch, as most of its original forces had been handed over to the 1st tank army.”²⁹

According to the plans of the MoD at the time of this writing, the armed forces should grow by only 10,000 troops this year. It is enough to staff only 1 division fully, but not 40 new units. In this situation, there may be two options. The first option would be to create new divisions on the “western direction,” where Russia could transfer troops from other regions. This is already happening. The commander of the Central Military District has announced that the division stationed at the 201st base in Tajikistan will transform to the brigade level.³⁰ Thus, in trying to satisfy its ambitions, Russia dramatically reduces its military presence in Central Asia, the region where the real, not imaginary military threat exists. However, the number of Russian troops is limited. Most likely, Kremlin military planners will choose the other way. The MoD will begin to

create the skeleton units that can gain combat ability; only after that, will they be staffed by reservists, who do not exist in reality. This will be the return to the discredited mass mobilization concept. As a result, existing dispersion forces brigades will lose their combat capability. Not only that, the Kremlin is already thinking about how to arm these mythical thousands of reservists. Putin has held meetings on enhancing the mobilization readiness of industry. Leaders of Russian military industry have discussed the possibility of transferring Russian industry to weapons production on the eve of war. At the end of the 1980s, attempts to strengthen mobilization readiness in the face of falling oil prices finally destroyed the Soviet economy. Now, it seems, the situation is repeating itself. In other words, confrontation with the West inevitably leads to the rebirth of the mass mobilization concept that killed the USSR.

ENDNOTES - CHAPTER 7

1. Alexander Tikhonov, "Oboronnye priorityty" ("Defense Priority"), *Krasnaya Zvezda*, February 27, 2014.

2. Ibid.

3. Laura Smith-Spark, Barbara Starr, and Karl Penhaul, "What do we know about Russia's troop buildup on Ukraine's border?" CNN, April 2, 2014, available from <http://www.cnn.com/2014/03/28/world/europe/russia-ukraine-troop-buildup/>.

4. Polina Himshiashvili and Aleksej Nikol'skij, "Koncentraciya bez gruppировki" ("Concentration without Grouping"), *Vedomosti*, April 2, 2014.

5. Tikhonov, "Oboronnye priorityty" ("Defense Priority").

6. Ivan Buvaltsev and Oleg Falichev, "Blizhnij Vostok na JUzhnom Urale" ("The Middle East in the Southern Urals"),

Voenno-promyshlennij kur'er, November 2, 2015, available from <http://vpk-news.ru/articles/27827>.

7. Vladimir Putin, "Annual Address to the Federal Assembly," Marble Hall, the Kremlin, Moscow, May 10, 2006, available from <http://en.kremlin.ru/events/president/transcripts/23577>.

8. Vladimir Putin, "Byt' sil'nymi: garantii nacional'noj bezopasnosti dlja Rossii" ("Be Strong: National Security Guarantees for Russia"), *Rossiiskaya gazeta*, February 12, 2012.

9. Vladimir Zolotarev, ed., *Istorija voennoj strategii Rossii (History of Russia's Military Strategy)*, Moscow: Kuchkovo pole, 2000, p. 528.

10. Leonid Khairemdinov, "Vremya mobilnosti" ("Time of Mobility"), *Krasnaya Zvezda*, October 1, 2009, available from http://old.redstar.ru/2009/10/01_10/1_05.html.

11. Denis Telmanov, "V sledujushhem godu zarplata lejtenantov sostavit 50 tysjach rublej" ("Next Year the Lieutenant's Salary Will be 50 Thousand Rubles"), *Gazeta*, November 14, 2008.

12. Vladimir Yevseev, "Otsrochki ot voennoi sluzhby: Segodnya i zavtra" ("Deferment from Military Service: Today and Tomorrow"), *Otechestvennye zapiski*, No. 5, 2005, available from <http://www.strana-oz.ru/2005/5/otsrochki-ot-voennoj-sluzhby-segodnya-i-zavtra>.

13. Vladimir Shamanov, "Neobkhodimost reform podtverdila vojna" ("The Need For Reforms Confirmed The War") *Krasnaya Zvezda*, February 11, 2009.

14. "V 2020 godu v rossijskoj armii budut sluzhit' polmilliona kontraktnikov" ("In 2020 the Half a Million Contract Soldiers Will Serve in Russian Army"), *Argumenti nedeli*, February 14, 2014, available from <http://argumenti.ru/army/2014/02/319393>.

15. Vladimir Ivanov, "Po amerikanskomu ranzhiru" ("According American Rankings"), *Nezavisimoe voennoe obozrenie*, April 6, 2012, available from http://nvo.ng.ru/high/2012-04-06/1_ranzhir.html.

16. Speech by Sergei Shoigu at a meeting in the Ryazan higher airborne command school on the development of military

education, quoted by Interfax News Agency, November 15, 2013, available from <http://www.interfax.ru/russia/341145>.

17. Aleksandr Tikhonov, “‘Cvetnye revoljucii’—ugroza miru” (“‘Color revolutions’—Threat to Peace”), *Krasnaya Zvezda*, April 23, 2014.

18. Nikolaj Gur’janov, “Serzhanty ne spravilis” (“The Sergeants Failed”), *Vzglyad*, May 16, 2012.

19. Ol’ga Bozh’eva, “V armii uvelichat srok sluzhby” (The Army Will Increase the Service Time), *Moskovskij komsomolec*, November 14, 2013, available from <http://www.mk.ru/politics/army/article/2013/11/11/943499-v-armii-uvelichat-srok-sluzhbyi.html>.

20. Aleksandr Tihonov, “Studentcheskij prizyv: v nogu so vremenem” (“Student’s Conscription: Keeping Pace with the Times”), *Krasnaya Zvezda*, December 19, 2013.

21. Evgeny Burdinsky, First Deputy Head of the Main Organizational and Mobilization Director, General Staff of Russia, in the program of radio station, Echo Moscv, July 18, 2015, available from <http://echo.msk.ru/programs/voensovet/1586730-echo/>.

22. Oleg Vladyikin, “‘TSentr-2015’ nikomu ne ugrojaet” (“‘TSentr-2015’ do not Threaten Anybody”), *Nezavisimoe voennoe obozrenie*, September 11, 2015.

23. Elena Kostjuchenko, “My vse znali, na chto idem i chto mozhet byt’” (“We All Knew in What We Take Part and What Can Happen”), *Novaja Gazeta*, March 4, 2015, available from <http://www.novayagazeta.ru/society/67490.html>.

24. “Russia to set up 3 divisions to counteract NATO – defense minister,” TASS, May 4, 2016, available from <http://tass.ru/en/defense/873755>.

25. “Defense minister: About 30 army units formed in Russia’s Western Military District in 2015,” TASS, September 11, 2015, available from <http://tass.ru/en/defense/820572>.

26. Defense Minister Sergei Shoigu at the board meeting of the Ministry of Defense, November 25, 2014, quoted by Interfax

News Agency, available from <http://www.interfax-russia.ru/South/main.asp?id=676521>.

27. Nikolai Poroskov, "Nekololnye interesi Rossii" ("Not-violent interests of Russia"), *Nezavisimoye voennoe obozrenie*, February 19, 2016, available from http://nvo.ng.ru/concepts/2016-02-19/12_interests.html.

28. "Pervayatankovaya: zachem armii Rossii mekhanizirovanny kulak" ("The first tank army: why the Russian Army needs mechanized fist"), TASS, February 2, 2016, available from <http://special.tass.ru/armiya-i-opk/2632366>.

29. "Russia to set up 3 divisions to counteract NATO – defense minister"; See also "Istochnik: tankovaya armiya budet sformirovana pod Moskvoy k zime" ("Source: tank army will be formed near Moscow by winter"), TASS, July 29, 2015, available from <http://tass.ru/armiya-i-opk/2150702>.

30. "Rossiyskuyuvoyennuyu bazu v Tadzhikestane perevedut na brigadnyy shtat" ("The Russian military base in Tajikistan will be transferred to the brigade status"), TASS, January 30, 2016, available from <http://special.tass.ru/armiya-i-opk/2627063>.

CHAPTER 8. RUSSIA'S "LESSONS LEARNED" FROM UKRAINE AND SYRIA

Keir Giles

Today we are acquiring priceless combat experience in Syria. It is essential for this to be analyzed in the branches of service and the combat arms at both the operational and tactical levels.

– Russian Chief of General Staff
Valery Gerasimov¹

The period since Russia returned to prominence in Western security thinking has seen a huge increase in the volume of writing on the Russian military and its development. Reports, reviews, and assessments have described the current state of the Russian armed forces, sometimes with surprise at their newly demonstrated capabilities and competencies. These descriptions are important, but one point that is overlooked consistently is that all snapshots of capability displayed by Russia in Ukraine and Syria at any given time tend to conceal ongoing development. The Russian military as a challenge continues to be not a static, but a rapidly developing phenomenon.

This applies not only in terms of re-equipping and rearming, and a continuing program of reorganization but also in internalizing and applying lessons learned from both conflicts.² These lessons have been learned at all levels—not just the tactical and operational, as highlighted in the comment by Gerasimov above, but also the strategic. This chapter gives an overview and introduction to the valuable knowledge that Russia has gained, and is assimilating, from each of these levels in

recent conflicts—and the lessons and implications for the United States and the West.

TACTICAL

From a very early stage in the Ukraine conflict, Russia was observed to be carrying out a roulement of troops from across the whole of its armed forces to the Ukrainian border. Similarly, in Syria, Russian servicemen were deployed on short tours of 3 to 4 months, in order to maximize exposure to real operating conditions across the military. According to one Russian general, it was cheaper to carry out “training” under real conditions in Syria by shipping men and equipment through the Bosphorus than to engage in Russia’s large-scale exercises on its own territory, with the enormous distances required to be covered there.³ Russian President Vladimir Putin also described the engagement in Syria as a training exercise—much to the disgust of Syrians fighting for their lives and futures.

The West has the benefit of observing the new equipment, tactics, techniques, and procedures employed by Russia in Ukraine, through the medium of feedback from the United States and other training teams operating with the Ukrainian Army in the west of the country. This feedback has been unambiguous and disturbing. The conclusion is that Western militaries must urgently optimize skills and capabilities not needed in decades, plus others that are substantially new.

In addition to a renewed emphasis on what were once basic infantry skills such as camouflage,⁴ “a generation that has lost the skills of manoeuvre warfare in contested domains—land, air, sea, and cyber”⁵ must now cope with a range of entirely unfamiliar challenges.

These include coping with being under sustained artillery bombardment, being targeted by unmanned aerial vehicles (UAVs), and being subjected to a number of forms of intense electronic attack. Russia has learned—and now Western militaries must learn too—how to deal with entirely new problems, such as addressing the self-inflicted vulnerabilities of a generation of young soldiers who are accustomed to carrying with them connected personal electronics, thereby making themselves a lucrative target for intelligence exploitation in hostile information security environments.⁶

Operations in Syria have provided further opportunities not only for ground training but also the scope for testing tactics and equipment in the air. Syrian airspace has seen a much more direct interaction between Russian and Western air defense systems and aircraft than the probing flights toward North Atlantic Treaty Organization (NATO) air space that receive greater media attention. Elsewhere, Russia's intensive practice for war in the subsea domain has become sufficiently urgent that it has moved from being deeply classified, to the subject of open media debate.⁷

Overall, the conclusions from the close observation of Russian military preparations are unsettling. In multiple domains, Western militaries must leave behind the automatic presumption of tactical and technological supremacy or even superiority. At the tactical level, any confrontation with Russia will be in a profoundly different combat environment than that experienced by an entire generation of NATO armies. As put by Andrew Monaghan:

While some Western military observers are painting a picture of a '2030 future' in which Russia has developed a "new generation" warfare, one in which Russian ground forces would rely on massive salvoes of precision rocket

and artillery fire, targeted by UAVs and cyber and electronic warfare capabilities designed to blind NATO, we do not have to look as far ahead as 2030 to see precisely that capacity taking shape. This emphasizes the point that the Western understanding of the evolution of Russian military, already playing catch-up in the wake of Russia's annexation of Crimea, should not fall behind either (let alone both) of the twin Russian curves of re-equipment and lesson learning.⁸

OPERATIONAL

Russia's early campaigning in Ukraine was an exercise in trial and error. Russia determined what worked on the fly, abandoning one operational model after another until arriving at a concept of operations that was stable and met objectives. Along the way, Russia gained valuable experience for maintaining large formations in the field after rapid deployments and sustaining them over extended periods with little obvious degradation in performance.

Once again, Syria too gave Russia additional practice in deploying forces, this time at a distance from Russian borders. The intervention there has laid to rest a long-standing axiom that "the Russian army intervenes in places that it can drive to," an assumption that had guided assessments of Russian options for a considerable period.

One interpretation of the lack of a Russian military response, whether through the Collective Security Treaty Organization (CSTO) or directly, to events in Kyrgyzstan at the beginning of this decade was that it demonstrated Russia was not capable of projecting power when required to resolve difficulties in its neighborhood.⁹ As expressed by the former head of the Main Operations Directorate Lieutenant-General

Andrey Tretyak in 2012, “there are no plans, not even the consideration of the possibility, of a military intervention in countries with no direct border with Russia.”¹⁰ Assessments on both sides today, after the experience of Syria, will be unrecognizably different.

Furthermore, the announcement in March 2016 by President Putin of a Russian “withdrawal” from Syria provided further proof of concept. It demonstrated that the lack of institutional memory among Western mass media is such that it is possible to establish a permanent presence in a foreign country, call it a withdrawal, and the media will repeat the false explanation unquestioningly.¹¹ Just several years after the annexation of Crimea, it has already been almost universally forgotten that statements by President Putin are not a reliable indicator of where Russian forces are and where they are not. For Russia, the obvious conclusion is that the heightened awareness in the West of information operations surrounding Russian military activity that followed the annexation of Crimea was a temporary phenomenon, and similar campaigns can be successfully undertaken in the future.

STRATEGIC

Related to the lessons learned by Russia at the strategic level is, in particular, what Russia has learned, and had reconfirmed, about the art of manipulating and maneuvering the West. Most alarmingly, Syria confirmed once again that military intervention to resolve Russia’s strategic challenges not only works, but also is the swiftest and most effective method—and gets international approval.

Syria represents the fourth occasion, following Kosovo, Georgia, and Ukraine, where decisive Russian

military intervention has substantially altered the situation in Moscow's favor. In all four instances, this has received international endorsement. Russia achieved its desire to be included in Kosovo Force (KFOR) on the basis of facts on the ground; the 2008 ceasefire was imposed on Georgia by a French President; the Minsk Protocols were overseen by both French and German leaders; and now the Syrian agreement has been accepted by the entire 20-member International Syria Support Group. The result can only be to encourage Russia to further military adventurism and be confident that the risks of significant international reaction are low.¹²

On each of the last three occasions, ceasefires were concluded on terms drafted in Moscow, leaving Russia free to interpret them in ways that surprise and alarm the West.¹³ In precisely the same way, after World War II, the Western allies protested vigorously at the way Soviet power was extended into Central Europe and the Balkans, saying that this was in violation of the Yalta and Potsdam agreements of 1945. Again, although Soviet actions may have been in breach of the Anglo-American interpretation of these ambiguous and imprecise arrangements, their interpretation in Moscow was what counted.

Success in Syria, resulting from direct military intervention, has bolstered Russia's aspirations toward a return to its former recognition as a world power and as a global influencer on par with the United States. Many Russian actions in the last 20 years can be seen as efforts to rebuild the national status as a great power that was lost in 1991. In this context, President Putin's view needs to be remembered that, in effect, Russia's entire (supposedly 1,000-year) national history is as a world-class power—with the exception of the

traumatic last 2 decades. Thus, the question of status and self-perception needs always to be borne in mind when considering Russian foreign policy, especially toward the United States and its closest allies.

The belief that no regional security issue can be addressed without the involvement of Russia underlines the significance of Russian insistence on being treated as an equal, and is a further factor in Moscow's calculations regarding military assertiveness overseas. In short, there is no reason at present for Russia to think a direct military intervention will not continue to be the right answer.

This is especially dangerous in the absence of serious effort by Western political leadership to deter Russian actions, either by prevention or by punishment. In the United States, in particular, there is a striking mismatch between the working levels in the Departments of State and Defense on the one hand, that understand the Russia problem, how to address it, and in particular, what not to do to make it worse, to the former U.S. President Barack Obama administration on the other hand, which showed no interest in mitigating the long-term consequences of mismanaging the Russian relationship by proceeding from an entirely misguided appreciation of Russian aims and interests.¹⁴ The damage was compounded by U.S. policy being communicated by a Secretary of State apparently in thrall to his Russian opposite number.

The former U.S. administration showed an unfortunate tendency toward unwarranted optimism and idealism. At the time of this writing, President Obama had recently visited London and urged young British people to "reject pessimism and cynicism," to "know that progress is possible and problems can be solved,"

and to “take a longer, more optimistic view of history.”¹⁵ The approaches to Russia shown by former President Obama and former Secretary of State John Kerry suggested, unfortunately, that they were also applying those principles to dealing with Moscow.

It is this groundless optimism, maintained in the face of consistent contrary evidence and consequent repeated disappointment that gives rise to what has been described as the “common analytical sins and questionable assumptions that bedevil the field of Russia analysis.”¹⁶ It also gives rise to recurrent resets, as the United States and the West succumb to the triumph of hope over experience and believe that a fresh start in relations with Russia will make everything work out this time.¹⁷ Furthermore, it leads to a tendency to seek the roots of failure in the relationship between Russia and the West elsewhere, rather than in the fundamental conflict of strategic priorities between the two sides, or in Russian behaviors.¹⁸ In fact, the Russian and the Western views of the world are no less at odds today than they were during Soviet times. Indeed, polls from 2016 have shown a majority of Russians favor restoring the Soviet Union, up to and including Stalinism.¹⁹ Crucially, this includes the younger generation, who have grown up with no direct memory of communism; views the Union of Soviet Socialist Republics (USSR) through the distorting lens of propaganda; and, hence, is entirely willing to believe the same narratives about a hostile and threatening West. Given this continuity, the persistent notion that time will bring attitudinal change to make Russia “more like the West” and hence less of a problem is entirely misplaced.²⁰

In Europe, meanwhile, leaders are distracted by domestic challenges and an exhausting debate over prioritizing between threats. Disagreements between

regions of Europe, even within a NATO context, over which is the real problem—Russia, the Islamic State in Iraq and Syria (ISIS), or migration—appear to hinge on the assumption that Europe will only have to deal with one of them at a time. This is profoundly mistaken. In addition, it adds to the challenge of negotiating the renewal of European sanctions against Russia each time this renewal is due. Sanctions, while causing significant disruption to European business, are a long-term instrument but one that Russia can reasonably assess will not be sustained over the long term.²¹ More critically, current European defense and security planning is also founded on the assumption that the United States will continue to subsidize generous health and welfare spending on the continent, by providing for its defense and thereby relieving states of the need to invest properly in it themselves.

WINDOW

It is likely that at the time of this writing, planners in Moscow perceive a limited window of opportunity for taking advantage of Russia's relative strengths. There is a risk that the next U.S. administration will be better prepared to face down Russia in defending the interests of the United States—and of its allies, whether or not they are willing to invest in properly defending themselves. In addition, the correlation of forces in purely military terms is currently favorable for Russia, but the trends are not. Prophecies of doom, collapse, and the overstretching of the Russian armed forces are, as usual, exaggerated, but sanctions, especially on the export of technologies, do have an effect on Russia's ambition for high-technology rearmament, and affordability is a growing issue.

Meanwhile, the strength of Russia's potential adversaries in Europe is growing. U.S. European Command (EUCOM) is doing what it can within political constraints, and the quadrupling of the budget for the European Reassurance Initiative will allow a number of practical steps to be taken. EUCOM's military intelligence chief is exceptionally well qualified to face the Russia challenge. In addition, the frontline states and major allies are finally starting to spool up defense spending. The increases in expenditure are nothing like what is required to mount a serious challenge to Russia, but sufficient that military adventurism will become more, not less, complex and unpredictable for Moscow to undertake.

Perhaps because of this perception, Russian activities geared toward preparation for conflict have become markedly more intense. Aggressive probing of the West's vulnerabilities continues. Intelligence gathering has been stepped up both in the frontline states and elsewhere. In this field, asymmetric steps have been taken when available, such as extending the capabilities of Open Skies flights over the United States, while restricting Western flights over sensitive areas that are directly relevant to Russian military readiness, such as Kaliningrad.

Incidents in the Baltic Sea have been contrived to create the impression that the United States is being provocative by operating in international waters and airspace within reach of Russia. One of the most dramatic and public examples was dangerous buzzing of the USS *Donald Cook* by Russian bombers in April 2016.²² The Russian demands in this context, if taken to their logical conclusion, would create a de facto exclusion zone and squeeze the United States out of

the Baltic Sea—exacerbating an already deeply unfavorable situation for defending or reinforcing Baltic States. This might seem to be an unrealistic Russian ambition, but if it is placed in the context of 3 years of Russia scoring diplomatic point after point over the West and endorsed by a compliant U.S. Secretary of State and Europe, which is fumbling for excuses to lift sanctions, the Russian approach of attempting the maximum achievable seems entirely reasonable.

This assertiveness and urgency extend into cyberspace as well. As put by former U.S. Director of National Intelligence James Clapper:

Russia is assuming a more assertive cyber posture based on its willingness to target critical infrastructure systems and conduct espionage operations **even when detected and under increased public scrutiny** [emphasis added].²³

There may also be a desire to provoke an incident ahead of the Warsaw summit in an attempt to intimidate allies into dialing back their defensive preparations for fear of provoking Russia into escalation. This is an entirely misplaced fear, and an example of a successful Russian information campaign: the crucial but under-reported detail is that Russia has already massively out-escalated NATO, which is only belatedly starting to play catch up on a scale which is minuscule by comparison.

Repeated promises by Russia to deploy Iskander-M missiles in Kaliningrad are an indicative example. Theorizing by Russian military leaders stress demonstrations of advanced military capability, and publicity for offensive weapons systems, as a means of preventive deterrence. The provision of Iskander systems to units in Kaliningrad, like other air defense and surface missile systems before it, is proceeding according to a

long-established schedule. Nevertheless, each time it is mentioned, it provokes the same excited reaction in Western media, serving Russia's purpose admirably.²⁴

These trends combine to create a temporary situation of even greater danger of conflict—especially to the extent that Moscow succeeds in portraying Western defensive preparations as threatening to Russia itself. The Soviet territorial acquisitions of 1939-1940, achieved by the invasion of Poland; threatened aggression against Estonia, Latvia, Lithuania, and Romania; and a full-scale military assault on Finland, were all justified by Moscow in terms of a need to strengthen Russia's defenses against an anticipated attack.

As has been well demonstrated elsewhere, Russian intent remains unchanged, and there was no fundamental shift in policy or worldview in 2014—but the new, and developing, means that Russia has to implement them present a growing danger. With a persistent zero-sum attitude, Russia seeks to regain power by weakening the power and influence of competitors, foremost among whom is the United States. Both the United States and its allies should be aware of the urgency with which Russia may seek opportunities to do so. After the experience of intervening in Crimea and Syria, President Putin may not necessarily have developed a taste for conflict, but it is entirely likely that he has developed a taste for success.

OUTLOOK

On the basis of the lessons learned from Ukraine and Syria, Russia can be expected to continue acting in its current manner for as long as this brings unchallenged success—in other words, unless and until the United States and the West respond in a way that is

seen as meaningful by President Putin. This ought not to mean a purely military response. Other options for countering Russia should be available. The European unity and support for the United States that would be necessary for other measures (for example, economic ones) remains questionable. In the meantime, it is axiomatic—and proven repeatedly over history—that Russia respects strength, and despises compromise and accommodation. This strength must necessarily include U.S. military power, present and ready for use, to provide a visible counter to Russia's own new capabilities.

In particular, planning for managing the Russia problem in hard security terms needs to be long term, rather than treating 2014-2016 as a "current crisis." Russia will continue to present a challenge for the foreseeable future. The assessment by the United Kingdom (UK) Ministry of Defence's Development, Concepts and Doctrine Centre (DCDC) is that:

The Russian political system will probably remain authoritarian, even after President Putin's tenure ends. Restoring Russia's status as a 'great power' is likely to remain a key political objective for the country. Russia will almost certainly seek to influence its near abroad with a mixture of hard and soft power.²⁵

In other words, the West has a Russia problem, not a Putin problem.

Just as history provides pointers to understand and predict Russian behaviors, so it also provides precedents for how the United States can deal with the challenge.²⁶ A key lesson is the necessity of political will to defend boundaries and values—since superior U.S. capability is useless without the will to use it. This will must be maintained in the face of Russian tactics of

attrition—combining a barrage of information operations with diplomacy, insistence, and persistence, and dedicating more resources than the West imagines feasible in a bid to exhaust the United States and cause it to withdraw from the fight. In short, the longer the United States and its allies wait to make it clear that they will resist Russia promptly in terms President Putin understands and respects, the harder and the more expensive this will become, and the less chance there is that it will succeed.²⁷

ENDNOTES - CHAPTER 8

1. Valery Gerasimov, “Po opytu Sirii” (“Based on the Experience of Syria”), *Voyenno-promyshlennyy kur'er*, March 9, 2016, available from http://vpk-news.ru/sites/default/files/pdf/VPK_09_624.pdf.

2. At the time of this writing, it was informally reported that Russia’s fighting forces were to undergo yet another round of reorganization. This was to be based on the experience of deployment to Syria and intended to make future deployments of this kind more efficient and effective.

3. Conversation with author, March 2016.

4. Julian E. Barnes, “The U.S. Military Looks to Revive the Art of Camouflage,” Real Time Brussels, blog of *The Wall Street Journal*, June 17, 2016, available from <https://blogs.wsj.com/brussels/2016/06/17/the-u-s-military-looks-to-revive-the-art-of-camouflage/>.

5. Senior flag officer, speaking under Chatham House rule at MARCOM conference, London, United Kingdom (UK), July 2, 2015.

6. There appears to be a contrast between provocative actions with regard to U.S. air assets and “professional” interaction with German aircraft. See David Axe, “U.S. and Russian Jets Clash Over Syria,” *The Daily Beast*, June 19, 2016, available from <http://www.thedailybeast.com/articles/2016/06/19/u-s-and-russian-jets-clash-over-syria.html>; and Dario Leone, “Russian fighters often shadow German Tornados over Syria but ‘they do it professionally’

Luftwaffe says," *The Aviationist*, February 17, 2016, available from <https://theaviationist.com/2016/02/17/russian-fighters-often-shadow-german-tornados-over-syria-but-they-do-it-professionally-luftwaffe-says/>. Israel is also involved: see Micah Halpern, "Close Encounters of the Wrong Kind: Russia and Israeli Planes Near Dogfight," *Observer*, May 19, 2016, available from <http://observer.com/2016/05/close-encounters-of-the-wrong-kind-russia-and-israeli-planes-near-dogfight/>.

7. Summed up in Vice Admiral James Foggo III, U.S. Navy, and Alarik Fritz, "The Fourth Battle of the Atlantic," *Proceedings*, Vol. 142/6/1,360, June 2016, available from <https://www.usni.org/magazines/proceedings/2016/june/fourth-battle-atlantic>, accessed May 5, 2019.

8. Andrew Monaghan, "The 'War' in Russia's 'Hybrid Warfare'," *Parameters*, Vol. 45, Iss. 4, Winter 2015-16, pp. 72-73, available from http://strategicstudiesinstitute.army.mil/pubs/parameters/issues/Winter_2015-16/9_Monaghan.pdf.

9. As detailed, for example, by Pavel Baev in a lecture at King's College, London, UK, January 18, 2013. See also Roman Muzalevsky, "CSTO: Half Dead, Half Alive," *Eurasia Daily Monitor*, Vol. 7, Iss. 166, September 16, 2010, available from http://www.jamestown.org/single/?tx_ttnews%5Btt_news%5D=36856.

10. Speaking at NATO Defense College, Rome, Italy, November 27, 2012.

11. For instance, Holly Yan and Tim Hume, "Russia begins withdrawing forces from Syria," CNN, March 15, 2016, available from <http://www.cnn.com/2016/03/15/world/russia-syria-withdrawal/>; followed by Dmitry Gorenburg and Michael Kofman, "There is No Russian Withdrawal from Syria," *War on the Rocks*, March 18, 2016, available from <https://warontherocks.com/2016/03/there-is-no-russian-withdrawal-from-syria/>.

12. For more details, see Keir Giles, "What Russia Learns From the Syria Ceasefire: Military Action Works," Chatham House, The Royal Institute of International Affairs, March 3, 2016, available from <https://www.chathamhouse.org/expert/comment/what-russia-learns-syria-ceasefire-military-action-works>.

13. As detailed in *The Nature of the Georgian Ceasefire*, Shrivenham, Swindon, UK: Advanced Research and Assessment Group, Defence Academy of the United Kingdom, August 13, 2008.

14. As exemplified in the early stages of the Ukraine crisis by the repeated emphasis on “offering Putin an off-ramp,” at a stage where this was the last thing Russia wanted or needed. For the first of many examples, see Walter Russell Mead, “Russia Blows Past Obama’s ‘Off Ramp’,” *The American Interest*, March 6, 2014, available from <http://www.the-american-interest.com/2014/03/06/russia-blows-past-obamas-off-ramp/>.

15. “President Obama tells young to ‘reject cynicism’,” BBC News, April 23, 2016, available from <http://www.bbc.co.uk/news/uk-36119829>.

16. Michael Kofman, “The Seven Deadly Sins Of Russia Analysis,” *War on the Rocks*, December 23, 2015, available from <http://warontherocks.com/2015/12/the-seven-deadly-sins-of-russia-analysis/>.

17. A monograph published in 2011 described in detail the cycle of reset and crisis that had repeated several times since the end of the Cold War, and, on the basis of that analysis, predicted that there would shortly be a return to crisis. That crisis duly materialized in the shape of the confrontation over Ukraine. See Keir Giles, *The State of the NATO-Russia Reset*, Watlington, Oxford, UK: Conflict Studies Research Centre, September 2011, available from http://www.academia.edu/947793/The_State_of_the_NATO-Russia_Reset.

18. As described in Stephen J. Blank, *Towards A New Russia Policy*, Carlisle, PA: U.S. Army War College, March 2008.

19. “Chetvert rossiyan nazvali stalinskiye repressii neobkhodimostyu” (“One-quarter of Russians called Stalin’s repressions essential”), Interfax News Agency, March 25, 2016, available from <http://www.interfax.ru/russia/500248>.

20. For a discussion of clear links between historical Soviet expansionism and current Russian geopolitics, see Anne McElvoy, “Russian Culture Inwards and Outwards,” BBC Radio 3, February 25, 2016, available from <http://www.bbc.co.uk/programmes/b0717c26>. See also Polly Jones, *Myth, Memory, Trauma: Rethinking the Stalinist Past in the Soviet Union, 1953-70*, New Haven, CT: Yale

University Press, 2013; and Victor Madeira, *Britannia and the Bear*, Woodbridge, Suffolk, UK: Boydell and Brewer, 2014.

21. Sarah Lain and Andrea Berger, "Russia Sanctions: The Other EU Vote," *RUSI Commentary*, June 21, 2016, available from <https://rusi.org/commentary/russia-sanctions-other-eu-vote>.

22. Keir Giles, "Russian High Seas Brinkmanship Echoes Cold War," Chatham House, The Royal Institute of International Affairs, April 15, 2016, available from <https://www.chathamhouse.org/expert/comment/russian-high-seas-brinkmanship-echoes-cold-war>.

23. James R. Clapper, "Statement for the Record Worldwide Threat Assessment of the US Intelligence Community," Senate Armed Services Committee, Washington, DC, February 9, 2016, available from http://www.armed-services.senate.gov/imo/media/doc/Clapper_02-09-16.pdf.

24. There is a long history of these announcements. For the two most recent examples promising deployment in 2018 and 2019, respectively, see "Iskander-M missile systems to be deployed in Kaliningrad region till 2018," TASS, May 16, 2015, available from <http://tass.ru/en/russia/795113>, accessed June 24, 2016; and Andrew Osborn, "Russia seen putting new nuclear-capable missiles along NATO border by 2019," Reuters, June 23, 2016, available from <http://www.reuters.com/article/us-russia-europe-shield-idUSKCN0Z90WT>, accessed June 24, 2016.

25. *Global Strategic Trends—Out to 2045*, 5th ed., London, UK: Ministry of Defence, June 2014, p. 121.

26. Cold War studies such as John Lewis Gaddis's "Strategies of Containment" remain highly relevant today in terms of responses to historically consistent Russian strategic priorities and behaviors.

27. Philip M. Breedlove, "NATO's Next Act: How to Handle Russia and Other Threats," *Foreign Affairs*, July/August 2016, available from <https://www.foreignaffairs.com/articles/europe/2016-06-13/natos-next-act>.

CHAPTER 9. RUSSIAN NUCLEAR WEAPONS POLICY AND PROGRAMS, THE EUROPEAN SECURITY CRISIS, AND THE THREAT TO NATO

Mark B. Schneider

For the first time since World War II, the boundary of a European state has been changed by military force. Russia now threatens not only Ukraine but also North Atlantic Treaty Organization (NATO) states and even neutral nations. According to Igor Ivanov, Russia's Foreign Minister under former President Boris Yeltsin and current President Vladimir Putin and Secretary of the Russian National Security Council under President Putin, "The risk of confrontation with the use of nuclear weapons in Europe is higher than in the 1980s."¹ If so, this is the direct result of Russian policy. In December 2012, the Director of National Intelligence's National Intelligence Council observed:

Nuclear ambitions in the U.S. and Russia over the last 20 years have evolved in opposite directions. Reducing the role of nuclear weapons in U.S. security strategy is a U.S. objective, while Russia is pursuing new concepts and capabilities for expanding the role of nuclear weapons in its security strategy.²

The concept of de-escalation of a conventional war by nuclear weapons first use emerged in Russia in the 1990s. A declassified Central Intelligence Agency (CIA) report from August 2000 stated, "Senior Russian military officers have advocated the use of highly accurate, super-low-yield nuclear weapons in Russian military journals such as *Military Thought* and *Armeyskiy Sbornik*."³ De-escalation was codified in the "Ivanov doctrine" ("Urgent Priorities of the Development of the Russian Federation Armed Forces," October 2003)

which elaborated upon President Putin's new Military Doctrine which he signed into law in 2000. It declared, "De-escalation of aggression is forcing the enemy to halt military action by a threat to deliver or by actual delivery of strikes of varying intensity with reliance on conventional and (or) nuclear weapons."⁴

There are two elements to the Russian nuclear threat:

1. Russia's doctrine concerning the first use of nuclear weapons in local and regional conventional war (i.e., de-escalation of a conflict); and,
2. Russian modernization programs which are aimed at facilitating aggression by:
 - a. Russian first use of precision, low-yield/low-collateral damage nuclear weapons for the initial nuclear strikes; and,
 - b. the threat of massively destructive Russian nuclear strikes to deter U.S. and NATO nuclear retaliation.

In June 2015, President Putin asserted:

we are actively strengthening our strategic nuclear forces and Aerospace Defence units [missile and aircraft defense], and we have had a significant increase in the combat potential of nearly all types and kinds of troops.⁵

Support for nuclear weapons is almost universal in Russia. Russia's nuclear doctrine was developed by President Putin when he was National Security Council Secretary, and he signed it into law as acting President in 2000.⁶ It allowed for first use of nuclear weapons in conventional wars in situations critical to Russian security.⁷ Russia now has nuclear weapons and delivery systems with which to implement this policy. A declassified August 2000 CIA report noted,

“Recent statements on Russia’s evolving nuclear weapons doctrine lower the threshold for first use of nuclear weapons and blur the boundary between nuclear and conventional warfare.”⁸ In 1999, then-First Deputy Atomic Energy Minister Viktor Mikhaylov said, “a ‘new generation’ of low-yield nuclear weapons ‘can really be used in case of any large-scale military conflict’.”⁹ In 2009, Russian National Security Council Secretary Nikolai Patrushev revealed Russian nuclear doctrine provided for the first use of nuclear weapons in local and regional wars, something not evident on its face.¹⁰

First use of nuclear weapons in conventional war includes strategic nuclear weapons. In December 2009, then-Commander of the Strategic Missile Troops Lieutenant General Andrey Shvaichenko said:

In a conventional war, they [the nuclear ICBMs] ensure that the opponent is forced to cease hostilities, on advantageous conditions for Russia, by means of single or multiple preventive strikes against the aggressors’ most important facilities.¹¹

Shvaichenko’s statement about using nuclear intercontinental ballistic missiles (ICBMs) in a conventional war is what Russia calls “de-escalation of a conflict.”¹² First use of nuclear weapons is assumed to result in a Russian victory, rather than the start of a nuclear war. Writing in May 1999, Major-General V. I. Levshin, Colonel A. V. Nedelin, and Colonel M. Ye Sosnovskiy described the concept of “de-escalation of military operations,” which was linked to the new military doctrine:

Fulfilling the de-escalation concept is understood to mean actually using nuclear weapons both for showing resolve as well as for the immediate delivery of nuclear strikes

against the enemy. . . . It seems to U.S. that the cessation of military operations will be the most acceptable thing for the enemy in this case.¹³

The original version by Putin of Russian nuclear first use declaratory policy provided for the use of nuclear weapons in conventional war situations that were “critical to the national security of the Russian Federation and its allies.”¹⁴ The 2010 and the 2014 versions of Russia’s Military Doctrine changed this formulation to read, “when the very existence of the state is under threat.”¹⁵ At first glance, this would appear to be a good change, but unfortunately, this is not the case. Russia prominently announced that its policy on “the use of nuclear weapons as an instrument of strategic deterrence” would be in the “closed part” of its new military doctrine.¹⁶ In February 2015, Ilya Kramnik, who served as a military correspondent for *RIA Novosti*, an official news agency until it was purged by President Putin in 2014, wrote that the 2010 version of the military doctrine “further lowered” the threshold for the “combat use” of nuclear weapons.¹⁷ In September 2014, General of the Army (Ret.) Yuri Baluyevsky, former Chief of the General Staff and Deputy Secretary of the Russian National Security Council, said the “conditions for pre-emptive nuclear strikes . . . is contained in classified policy documents.”¹⁸ The real Russian nuclear doctrine is apparently contained in a classified document called the “Basic Principles of State’s Policy in the Area of Nuclear Deterrence through 2020.”¹⁹

In December 2014, Interfax, the main unofficial Russian news agency, reported that the classified Russian criteria provide for first nuclear weapons use if the “sovereignty and territorial integrity of our country

are really threatened with destruction.”²⁰ Interestingly, in 2008, General Yuri Baluyevsky had also stated:

We have no plans to attack anyone, but we consider it necessary for all our partners in the world community to clearly understand . . . that to defend the sovereignty and territorial integrity of Russia and its allies, military forces will be used, including preventively, including with the use of nuclear weapons.²¹

If this is Russian policy, “sovereignty and territorial integrity” is vague and potentially very permissive. President Putin has said some interesting things concerning Russian sovereignty and territorial integrity.

President Putin has long been obsessed with threats to Russian sovereignty and territorial integrity. In July 2000, he stated, “Russia has come up against a system challenge to its state sovereignty and territorial integrity, it has found itself face to face with the attempts of geopolitical reshaping of the world.”²² In 2012, President Putin said that nuclear weapons “remain a vital guarantee of Russia’s sovereignty and territorial integrity and play a key role in maintaining global and regional balance and stability.”²³ In September 2013, President Putin declared, “Russia’s sovereignty, independence, and territorial integrity are unconditional.”²⁴ He has characterized “sovereignty and territorial integrity” as “fundamental values” which are being threatened by “color revolutions,” but which are guaranteed by Russia’s strategic forces.²⁵ In a November 2014 news conference, President Putin portrayed the Russian bear as surrounded by enemies who want to dismember it and are only prevented from doing so by Russia’s military power, stating: “So, it is not about Crimea but about us protecting our independence, our

sovereignty, and our right to exist. That is what we should all realize.”²⁶

It appears that Russia may go to war over ideological fantasy. Russian paranoia about the loss of its sovereignty is particularly dangerous in the context of Russian nuclear doctrine. As Admiral William Gortney, then-Commander of U.S. North Command has observed:

While Russia seeks to avoid a strategic conflict with the United States, Moscow perceives itself to be threatened by a coordinated Western effort to erode its sovereignty, weaken its economy, and undermine its regime. I am concerned these threat perceptions could prompt Russia’s leaders to misinterpret our intentions in a crisis, leading to inadvertent escalation.²⁷

Ambassador Steven Pifer has pointed out:

The ‘de-escalation’ doctrine, Putin’s references to nuclear weapons in his public statements, and the broad modernization of Russia’s nonstrategic nuclear forces suggest that the classified strategy could envisage use of those weapons in wider circumstances.²⁸

After 2015, the Obama administration’s view of the Russian nuclear threat changed significantly. In June 2015, the former U.S. Deputy Secretary of Defense Robert Work and Vice Chairman of the Joint Chiefs of Staff Admiral James Winnefeld observed, “Russian military doctrine includes what some have called an ‘escalate to de-escalate’ strategy – a strategy that purportedly seeks to [de-escalate] a conventional conflict through coercive threats, including limited nuclear use,” a policy they categorized as “playing with fire.”²⁹ In March 2016, Robert Scher, then-Assistant Secretary of Defense for Strategy, Plans and Capabilities, testified before Congress that Russia has:

adopted a pattern of reckless nuclear posturing and coercive threats. Russia remains in violation of the Intermediate-Range Nuclear Forces (INF) Treaty and remains unreceptive to the President's offer to negotiate further reductions in strategic nuclear weapons below the limits of the New START Treaty.³⁰

He continued, "Russia's purported doctrine of nuclear escalation to de-escalate a conventional conflict amounts to a reckless gamble for which the odds are incalculable and the outcome could prove catastrophic."³¹

In February 2016, then-Secretary of Defense (SECDEF) Ashton Carter said, "Five evolving strategic challenges—namely Russia, China, North Korea, Iran, and terrorism—are now driving DoD's [Department of Defense] planning and budgeting as reflected in this budget."³² He put Russia and China at the top of the list. In May 2016, Carter stated:

Moscow's nuclear saber-rattling raises troubling questions about Russia's leaders' commitment to strategic stability, their respect for norms against the use of nuclear weapons, and whether they respect the profound caution that nuclear-age leaders showed with regard to brandishing nuclear weapons.³³

The NATO view of the Russian nuclear threat has also changed. In May 2015, NATO Secretary General Jens Stoltenberg said:

Russia's recent use of nuclear rhetoric, exercises and operations are deeply troubling. As are concerns regarding its compliance with the Intermediate Nuclear Forces Treaty. Putin's admission that he considered putting Russia's nuclear forces on alert while Russia was annexing Crimea is but one example. Russia has also significantly increased the scale, number, and range of provocative flights by nuclear-capable bombers across

much of the globe, from Japan to Gibraltar, from Crete to California, and from the Baltic Sea to the Black Sea. Russian officials announced plans to base modern nuclear-capable missile systems in Kaliningrad. They claim that Russia has the right to deploy nuclear forces to Crimea. This will fundamentally change the balance of security in Europe. We learned during the Cold War that when it comes to nuclear weapons, caution, predictability, and transparency are vital. Russia's nuclear saber rattling is unjustified, destabilizing, and dangerous. All of this takes place against the background of Russia's significant rearmament program. Some of its new military systems were put on parade during this year's Victory Day celebration. Russia is deploying many of its most modern systems and basing military units near NATO borders.³⁴

In February 2016, Stoltenberg affirmed, "Russia's rhetoric, posture, and exercises of its nuclear forces are aimed at intimidating its neighbors," adding that this was "Undermining trust and stability in Europe."³⁵ Former NATO Deputy Supreme Allied Commander Europe Lieutenant General Sir Adrian Bradshaw warned that Eastern European NATO countries face the risk of a Russian conventional attack backed by the threat of escalation if NATO responds.³⁶

Since 2007, we have heard many nuclear threats from Russia's senior leadership.³⁷ The most serious threats involve the targeting of nuclear missiles and pre-emptive nuclear attacks against the United States, our allies, and even the whole world.³⁸ President Putin personally made several threats to target Russia's missiles at U.S. friends and allies.³⁹ In 2011, General Nikolai Makarov, then-Chief of the General Staff, stated that minor border conflicts could "*grow into a large-scale war, possibly even with nuclear weapons* [italics in original]."⁴⁰ In March 2015, Russian Ambassador to Denmark Mikhail Vanin made perhaps the most explicit

of the nuclear targeting threats: "I don't think that Danes fully understand the consequence if Denmark joins the American-led missile defense shield. If they do, then Danish warships will be targets for Russian nuclear missiles."⁴¹ Since the beginning of Russia's aggression in Ukraine, the focus of Russian nuclear threats has been on deterring a NATO counter-attack.⁴² At a 2015 NATO meeting, then-SECDEF Chuck Hagel denounced Russia's "increasingly aggressive military actions, such as its recent flight of nuclear-capable bombers near British airspace over the English Channel."⁴³ In this incident, a Russian bomber was reported to be carrying a nuclear missile and simulated an attack on a United Kingdom submarine.⁴⁴

Russian nuclear exercises and the substantial publicity given to them by the Russian Government are unique in the world and appear consistent with their nuclear escalation strategy. Since 1999, we have seen many Russian press reports of simulated Russian first use of nuclear weapons in Europe, Asia, and the Indian Ocean.⁴⁵ Simulated first use of nuclear weapons began with the Zapad-1999 theater war exercise and was announced by then-Defense Minister Marshal Igor Sergeyev who said, "Our Army was forced to launch nuclear strikes first which enabled it to achieve a breakthrough in the theater situation."⁴⁶ Simon Saradzhyan of the Harvard Belfer Center has observed that "the Russian military has repeatedly gamed out use of strategic bombers to carry out such a demonstration nuclear strike during a number of war games, including the Zapad (West) exercise, which is held annually to simulate a war with NATO."⁴⁷

The Russian Vostok (East) 2010 exercise, apparently aimed against China, saw several Russian press reports of simulated Russian tactical nuclear weapons first use.⁴⁸ The official newspaper of the Far East Military District said, "To suppress a large center of the

separatists' resistance and to achieve minimal losses of the attacking troops a low-yield 'nuclear' attack was mounted against the enemy."⁴⁹ Vostok 2014 was reported to have been nuclear, and Russia said it was the largest exercise in Russian history.⁵⁰ Little effort was made to hide the fact the enemy was the United States and Japan.⁵¹

In January 2016, the annual NATO report noted:

Russia has conducted at least 18 large-scale snap exercises, some of which have involved more than 100,000 troops. These exercises include simulated nuclear attacks on NATO Allies (e.g., ZAPAD) and on partners (e.g., March 2013 simulated attacks on Sweden).⁵²

Today, multiple Russian military exercises are being conducted on a daily basis.

In 2016, Russia said there would be 100 exercises involving the ICBM force.⁵³ Since Russian Defense Minister Sergei Shoigu has announced that there will be a total of 2,000 exercises and many conventional exercises also routinely include nuclear scenarios, the actual number is likely to be quite higher.⁵⁴ Russia conducts announced large strategic nuclear exercises usually on an annual basis. In May 2014, during the Ukraine crisis, Russia staged a massive nuclear exercise under the direct control of President Putin.⁵⁵ It involved live launches of ICBMs and submarine-launched ballistic missiles (SLBMs), bomber attacks, launches of five types of nuclear-capable theater missiles and rockets, and launches of a missile defense interceptor and a dozen surface-to-air missiles. The exercise concluded with what the Russians called a "massive" launch of nuclear missiles.⁵⁶ A similar exercise was held in October 2015, although Russia revealed fewer details.

Russia is preparing to fight the United States, and we are preparing to fight terrorists. Our combat readiness for high-intensity conventional conflict has drastically declined since sequestration.⁵⁷ Our nuclear capability is being reduced, while Russian capability is increasing. U.S. nuclear modernization, even when viewed in theory, is only partial and is set about 15 years in the future.⁵⁸ Our nuclear modernization programs are still those that were adopted in 2010-11 when the Obama administration proclaimed Russia was not a serious threat. Indeed, U.S. Senator John McCain stated that in the proposed fiscal year (FY) 2017 budget, "certain critical nuclear modernization efforts, including an ICBM replacement and the B-61 nuclear bomb tail kit, have been further delayed."⁵⁹

In January 2011, during the New START (Strategic Arms Reduction Treaty) ratification hearings in Moscow, then-Russian Defense Minister Anatoly Serdyukov stated Russia intended to increase its nuclear forces.⁶⁰ In fact, Russian force expansion has been much faster than he said. Since New START's entry into force (2011), Russia has increased its deployed warheads and deployed and non-deployed delivery vehicles, reaching 1,735 deployed warheads, 198 above the Russian level at entry into force (EIF) and 185 above the New START limit.⁶¹ In this time period, deployed U.S. strategic nuclear warheads declined from 1,800 to 1,481.⁶² According to an article by Bill Gertz, "'The Russians are doubling their warhead output,' said one [Obama administration] official. 'They will be exceeding the New START [arms treaty] levels because of MIRVing [Multiple Independently-targetable Re-entry Vehicle] these new systems'."⁶³ A senior Russian Foreign Ministry official has talked about a Russian New START withdrawal.⁶⁴ Meanwhile, each of the

Obama administration's New START annual reports had indicated that there were unresolved New START "implementation-related questions;"⁶⁵ however, the administration had not revealed what those issues were.

Whether Russia pulls out of New START, Russian strategic nuclear forces will be much larger than the notional limit of 1,550 deployed strategic nuclear warheads agreed to in New START. State-run *Sputnik News* says Russia will have 2,100 actual deployed strategic nuclear warheads under New START.⁶⁶ The Federation of American Scientists has estimated that Russia will have 2,500 actual deployed strategic nuclear warheads by 2025.⁶⁷ That was before Russia announced a program to build at least 50 new Tu-160 bombers, which should push this number to over 3,000 actual deployed strategic nuclear warheads by about 2030.⁶⁸ In December 2014, Colonel General Sergei Karakayev, Commander of the Strategic Missile Forces, said, "Around 400 strategic missiles with warheads assigned for them are currently on combat duty,"⁶⁹ The problem is that under New START it is impossible to have more than around 300 deployed ICBMs consistent with the Russian-declared number of deployed delivery vehicles.

For about 5 years, I have not seen a single report in the Russian press that any delivery vehicles are being dismantled. The closest to this is the apparent one-for-one replacement of the old single warhead SS-25 with the new multiple warhead SS-27.⁷⁰

Ongoing Russian modernization efforts actually increase the number of warheads and delivery vehicles Russia would have to eliminate over the final 20 months of the New START Treaty mandated reduction period.

Even the Yeltsin-initiated Russian strategic nuclear modernization program involved the entire nuclear triad. President Putin's nuclear weapons program is far more ambitious. The announced Russian strategic nuclear modernization program includes:

- A new road-mobile and silo-based Topol-M Variant 2 (SS-27 Mod 1) ICBM.
- A new SS-27 Mod 2 derivative with a MIRV payload that the Russians call the RS-24/Yars.
- Improved versions of the Soviet legacy SS-N-23 SLBM called the Sineva and the Liner with many more warheads.
- A new MIRVed (six warheads) Bulava-30 SLBM being deployed on two types of new "*Borei*"-class submarines.
- A program to modernize the SS-19 with a hypersonic vehicle.
- A new stealthy long-range strategic nuclear cruise missile designated the KH-102.
- In December 2015, President Putin revealed that the long-range KH-101, which was supposed to be a conventional air-launched cruise missile (ALCM), was nuclear capable.
- Modernization of Blackjack (Tu-160) and Bear (Tu-95) heavy bombers.
- In 2015, Russia announced that it would build at least 50 more of an improved version of the Tu-160.
- Development and deployment of the new Sarmat heavy ICBM with a mammoth 10 tons of throw-weight (which will reportedly carry 10 heavy or 15 medium nuclear warheads) in 2018-2020.
- Development and deployment of a new rail-mobile ICBM in 2018-2020.

- Development and deployment of a new “ICBM” called the RS-26 Rubezh; in reality, an intermediate-range missile, by 2016 or 2017, however it is still in the development stage.
- Development of a “fifth generation” missile submarine carrying ballistic and cruise missiles.
- Development of a new stealthy heavy bomber that will carry cruise missiles and reportedly hypersonic missiles.
- Development of the “Maritime Multifunctional System Status-6,” a nuclear-armed, nuclear-powered, 10,000-kilometer (km) range, very fast, drone submarine capable of operating at a depth of 1,000-meters that the Russian press says carries a 100-megaton bomb and possibly a cobalt bomb.

Many of these systems are more capable than the 20- to 40-year-old U.S. systems. According to President Putin, there are new strategic nuclear systems that have yet to be announced.⁷¹ One of these may be a system referenced in 2013 by Colonel General (Ret.) Alexander Zelin, then the recently retired chief of the Russian Air Force: an air-launched ICBM called the Mark with deployment in the 2020s.⁷² If so, it would not be accountable under New START because the Treaty does not limit air-launched missiles.⁷³

Russia’s announced initial operational capability (IOC) dates for the new strategic nuclear systems indicate that all of them will be operational before there is any U.S. nuclear modernization. This will be true even if there is some slippage in Russia’s announced IOC dates. Due to U.S. numerical cuts and the lack of modernization, Russian deployment of advanced missile

and air defenses will erode our deterrent capabilities for the next 10-15 years.⁷⁴

Russian theater nuclear forces are also being substantially modernized and enhanced. Russia, through violations and circumventions, appears to be recreating the Soviet-era medium and intermediate-range nuclear missile capability, although at much-reduced numbers.⁷⁵ In August 2014, a State Department report announced:

The United States has determined that the Russian Federation is in violation of its obligations under the Intermediate-Range Nuclear Forces (INF) Treaty not to possess, produce, or flight-test a ground-launched cruise missile (GLCM) with a range capability of 500-km to 5,500-km, or to possess or produce launchers of such missiles.⁷⁶

The administration has said that this GLCM is an intermediate-range missile; this means that most of Europe can be targeted by it.⁷⁷ In December 2015, then-Under Secretary of State Rose Gottemoeller stated, “We have made very clear that this is not a technicality, a one-off event, or a case of mistaken identity, but a serious Russian violation of one of the most basic obligations under the INF Treaty.”⁷⁸ According to Brian McKeon, then-Principal Deputy Under Secretary of Defense for Policy, the prohibited GLCM “would increase the risk to our allies and an indirect threat to the United States.”⁷⁹ Michael Gordon, writing in *The New York Times*, said that the prohibited Russian GLCM was first tested in 2008.⁸⁰ If so, the probability that it has been covertly deployed is essentially 100 percent.

In March 2016, then-U.S. President Barack Obama spoke about Russian INF Treaty “violations” in the plural. The evidence we have from Russian press sources supports this conclusion. Another possible violation or circumvention of the INF Treaty is the RS-26

“ICBM.” At a minimum, the Russian RS-26 circumvents a basic prohibition in the INF Treaty, and it may violate the INF Treaty or New START. Dr. Keith Payne and this author have laid out the case in a *National Review* article that the RS-26 is a legal violation of the INF Treaty as it was interpreted to the Senate in 1988.⁸¹

The Russian R-500 cruise missile, now deployed, is also a likely violation of the INF Treaty. In 2013, Pavel Felgenhauer, a leading Russian defense columnist and very well noted Russian journalist, said that there are two different versions of the R-500 cruise missile: one with a range of 1,000-km and the other with a range of 2,000-3,000-km.⁸² There are many similar Russian press reports concerning the range of the R-500.⁸³

The other INF Treaty compliance issues are the reported Iskander-M tactical missile range (600-1,000 km), probably an INF Treaty circumvention, and the reported retention of the Soviet-era Skorost intermediate-range ballistic missile (IRBM), an apparent INF violation since it should have been declared and eliminated under the INF Treaty.⁸⁴

According to Felgenhauer, “Moscow plans to covertly quit the 1987 treaty on medium and short-range missiles” because the Russian S-300 and the S-400 air defense missiles, the new S-500 air and missile defense interceptor, and the Moscow anti-ballistic missile (ABM) interceptors are nuclear armed and can function as “dual-use as conventional or nuclear medium or shorter range ballistic missiles.”⁸⁵ If he were correct, in some cases, these would constitute violations of the INF Treaty.⁸⁶ There is increasing evidence of this. The President of Belarus has talked about the ground-attack capability of the S-300, the shortest-range missile mentioned by Felgenhauer.⁸⁷ In 2015, Felgenhauer wrote that the S-300 surface-to-surface

range is 400 km.⁸⁸ TASS has recently published several articles stating that the S-400 “can also be used against ground objectives.”⁸⁹ *Red Star*, the official newspaper for the Russian Defense Ministry, has reported that Russia has 700 nuclear warheads for the Moscow ABM and its surface-to-air missiles.⁹⁰ Hans M. Kristensen and Robert S. Norris wrote that Russian missile and air defense weapons have a “total inventory of about 480 [nuclear] warheads.”⁹¹ These are hardly insignificant numbers in the current context.

If you put all of these issues together, the INF Treaty is effectively dead vis-à-vis any limits on Russian medium and intermediate-range missile capabilities, with disturbing implications for NATO’s security. The Obama administration said it was looking at responses to Russian INF violations. However, no action was taken and Russia deployed the prohibited missile in 2017.⁹²

Senior Russian officials have said that they are developing new types of nuclear weapons. Russian nuclear warhead development reportedly is being assisted by hydronuclear testing.⁹³ The 2009 report of the U.S. Strategic Commission stated, “Apparently Russia and possibly China are conducting low yield tests.”⁹⁴ Hydronuclear testing produces very low nuclear yields. There is substantial evidence of this in the Russian press. In April 1999, then-Russian First Deputy Minister for Nuclear Energy Viktor Mikhaylov wrote, “developed traditional nuclear powers can use hydronuclear experiments to perform tasks of improving reliability of their nuclear arsenal and effectively steward its operation.”⁹⁵ In 1999, former President Yeltsin reportedly authorized “hydronuclear field experiments.”⁹⁶ In November 2010, Alexei Fenenko of the Russian National Academy of Scientists wrote,

“Over the past 15 years, significant progress has been made in subcritical and hydronuclear testing.”⁹⁷ A declassified 1999 CIA report said that hydronuclear experiments “are far more useful for Russian weapons development” than “subcritical tests.”⁹⁸ In January 2016, Dr. John Foster, former Director of the Lawrence Livermore National Laboratory, stated that hydronuclear tests “of less than one ton” yield could provide high confidence in the “performance [of nuclear weapons] at low yield.”⁹⁹

In January 2005, Sergei Ivanov, then-Defense Minister of Russia, declared, “We will develop, improve, and deploy **new types** of nuclear weapons. We will make them more reliable and accurate [emphasis added].”¹⁰⁰ He also revealed that “**New types** of nuclear weapons are already emerging in Russia [emphasis added].”¹⁰¹ According to Colonel General Vladimir Verkhovtsev, then-chief of the Defense Ministry’s 12th Main Directorate, Russia’s nuclear weapons organization, the newly developed and manufactured nuclear munitions will have “improved tactical and technical specifications.”¹⁰² These weapons reportedly include new high-yield thermonuclear warheads, small MIRV warheads, tactical nuclear weapons, low collateral damage weapons, and precision low-yield nuclear weapons.¹⁰³ In 2009, the U.S. Strategic Commission report said Russia was developing “low-yield tactical nuclear weapons including an earth penetrator.”¹⁰⁴

Russian press reports indicate that weapons with yields of tens of tons to 200 tons of trinitrotoluene (TNT) have been deployed on Russian SLBMs.¹⁰⁵ In December 2002, former Atomic Energy Minister and then-Director of the Sarov nuclear weapons laboratory Viktor Mikhaylov stated:

The scientists are developing a nuclear 'scalpel' capable of 'surgically removing' and destroying very localized targets. The low-yield warhead will be surrounded with a superhardened casing which makes it possible to penetrate 30–40 meters into rock and destroy a buried target—for example, a troop command and control point or a nuclear munitions storage facility.¹⁰⁶

In 2003, he said that Russia had thermonuclear weapons "yielding hundreds of tons."¹⁰⁷ In 2015, the Sarov nuclear weapons design laboratory claimed to have developed nuclear explosives that are 99.85 percent clean (i.e., produce very little fallout).¹⁰⁸ A declassified CIA report dating from August 2000 made this linkage: "Judging from Russian writing since 1995 and Moscow's evolving nuclear doctrine, new roles are emerging for very-low-yield nuclear weapons—including weapons with tailored radiation output."¹⁰⁹ These are among the weapons Russia would probably use in a conventional war to de-escalate the war by nuclear first use.

As the Department of Energy and DoD reported in September 2008:

quite unlike the United States, Russia maintains a fully functional nuclear weapons design, development, test and manufacturing infrastructure capable of producing significant quantities of nuclear warheads per year.¹¹⁰

Russia reportedly can produce 2,000 new nuclear weapons yearly.¹¹¹

In 2012, the Obama administration estimated Russia had 4,000-6,500 nuclear weapons, 2,000-4,000 of which were tactical nuclear weapons.¹¹² Russian press estimates are frequently even higher. In 2009, ITAR-TASS said Russia probably had 15,000-17,000 nuclear weapons.¹¹³ According to the Obama administration,

Russia has retained 10 times as many tactical nuclear weapons as the United States.¹¹⁴ Russian press reports indicate that this includes virtually every type of Cold War tactical nuclear weapon.¹¹⁵ In contrast, the U.S. tactical nuclear stockpile has reportedly been reduced by 90 percent to a single type of nuclear bomb.

Dual capability (nuclear and conventional) is the norm in Russia. Russia is now modernizing its tactical nuclear force. The Russian Defense Ministry has confirmed Russian press reports that the Iskander-M tactical missile is nuclear capable.¹¹⁶ So is the new Su-34 long-range strike fighter, which General Alexander Zelin, while chief of the Russian Air Force, said was going to be given a strategic nuclear mission with a long-range cruise missile.¹¹⁷ This may be the reason the nuclear capability of the KH-101 long-range ALCM was kept secret for so long.¹¹⁸ The new Kalibr anti-ship and land-attack cruise missiles are now deployed; operationally used in Syria; and are, according to President Putin, nuclear capable.¹¹⁹

Russia retains numerous battlefield nuclear weapons.¹²⁰ This includes nuclear artillery and short-range tactical missiles. In 2004, Russian television displayed a new howitzer that reportedly “could be used to fire low-yield nuclear bombs.”¹²¹ In April 2016, Kristensen and Norris wrote, “We estimate there are roughly 140 warheads for short-range ballistic missiles.”¹²² This estimate could be very low. In April 2014, academician Yevgeniy Avrorin, a former Director of the Sarov nuclear weapons laboratory (the All-Russian Scientific-Research Institute), in an interview published by the Sarov nuclear weapons laboratory said that the 152 millimeter nuclear artillery shell with “a kiloton yield” has been “broadly deployed” throughout the Russian Army.¹²³

The tactical nuclear asymmetry is even more dangerous because of Russian attitudes toward nuclear weapons first use and the threat of further Russian aggression. This is not a pretty picture. Blatant aggression against NATO, combined with nuclear weapons use, is about the most dangerous strategy possible. Failure to deter Russia credibly, or indeed even try to deter it, will only invite further aggression and increase the risk of miscalculation and war with potentially catastrophic consequences.

ENDNOTES - CHAPTER 9

1. Robin Emmott, "Risk of nuclear war in Europe growing, warns Russian ex-minister," Reuters, March 19, 2016, available from <http://www.reuters.com/article/us-ukraine-crisis-russia-idUSKCN0WL0EV>.

2. "Global Trends 2030: Alternative Worlds," Washington, DC: National Intelligence Council, December 2012, p. 69, available from https://www.dni.gov/files/documents/GlobalTrends_2030.pdf.

3. "Evidence of Russian Development of New Sub-kiloton Nuclear Warheads," Washington, DC: Office of Transnational Issues, Central Intelligence Agency, August 30, 2000, available from <https://nsarchive2.gwu.edu/NSAEBB/NSAEBB200/20000830.pdf>.

4. "The Priority Tasks of the Development of the Armed Forces of the Russian Federation," Moscow, Russia: The Defense Ministry of the Russian Federation, 2003, available from <http://red-stars.org/doctrine.pdf>.

5. "Reception in honour of graduates of military academies," Kremlin.ru, June 25, 2015, available from <http://en.kremlin.ru/events/president/news/49763>.

6. Mark Schneider, *The Nuclear Forces and Doctrine of the Russian Federation*, Fairfax, VA: National Institute Press, 2006, p. 20,

available from <http://www.nipp.org/wp-content/uploads/2014/12/Russian-nuclear-doctrine-NSF-for-print.pdf>.

7. *Ibid.*, p. 21.

8. "Evidence of Russian Development of New Sub-kiloton Nuclear Warheads."

9. "Russia's Citadel of Secrecy: Arzamas-16, Birthplace of the Soviet Union's Atomic Bomb, Still Centre of Nuclear Activity: [Final Edition]," *Calgary Herald*, September 5, 1999, available from <http://www.proquest.com/>.

10. "Russia to broaden nuclear strike options," RT News, October 14, 2009, available from <http://rt.com/news/russia-broaden-nuclear-strike/>; Schneider, *The Nuclear Forces and Doctrine of the Russian Federation*, p. 21.

11. "Russia May Face Large-Scale Military Attack, Says Strategic Missile Troops Chief," BBC Monitoring Former Soviet Union, December 16, 2009.

12. Jacob W. Kipp, "Russia's Nonstrategic Nuclear Weapons," *Military Review*, Vol. LXXXI, No. 3, May-June 2001, available from <http://cgsc.contentdm.oclc.org/cdm/singleitem/collection/p124201coll1/id/235/rec/4>.

13. Schneider, *The Nuclear Forces and Doctrine of the Russian Federation*, p. 20.

14. "Draft Russian Military Doctrine," BBC Worldwide Monitoring, October 11, 1999, available from <http://fas.org/nuke/guide/russia/doctrine/991009-draft-doctrine.htm>.

15. *'The Military Doctrine of the Russian Federation' Approved by Russian Federation*, approved by Russian Federation Presidential edict on February 5, 2010, Moscow, Russia: The Defense Ministry of the Russian Federation, 2010, available from https://carnegieendowment.org/files/2010russia_military_doctrine.pdf.

16. "Army; Closed Part of New Military Doctrine to Define Legal Aspects Of Forces' Employment, Nuclear Weapons—Gen. Staff," Interfax, August 14, 2009.

17. Ilya Kramnik, "Cold-Calculation Apocalypse. NATO Has Taken Notice of the Russian Nuclear Threat," *Lenta.ru*, February 3, 2015, available from <http://lenta.ru/articles/2015/02/03/apocalipsis/>.

18. "Russia Classifies Information on Pre-emptive Nuclear Strikes—Military," *BBC Monitoring Former Soviet Union*, September 5, 2014.

19. Pavel Podvig, "New Russian military doctrine," *Russian strategic nuclear forces*, February 5, 2010, available from http://russianforces.org/blog/2010/02/new_russian_military_doctrine.shtml.

20. "Updated Russian Military Doctrine Has No Preemptive Nuclear Strike Provision - Source (Part 2)," *Interfax*, December 10, 2014, available from https://www.rbth.com/news/2014/12/10/updated_russian_military_doctrine_has_no_preemptive_nuclear_strike_provi_42120.html.

21. "Russia: We May Use Nukes If Threatened," *The Jerusalem Post*, January 19, 2008, available from <https://www.jpost.com/International/Russia-We-may-use-nukes-if-threatened>.

22. "Russia Facing Challenges to Its Sovereignty – Putin," *ITAR-TASS*, July 8, 2000.

23. "Putin: Russia Not Going to Join New Arms Race But Will Develop Modern Nuclear Arms," *Interfax*, July 26, 2012.

24. "Meeting of the Valdai International Discussion Club," *Kremlin.ru*, September 19, 2013, available from <http://en.kremlin.ru/events/president/news/19243>.

25. "Security Council meeting," *Kremlin.ru*, July 22, 2014, available from <http://en.kremlin.ru/events/president/news/46305>.

26. "News conference of Vladimir Putin," *Kremlin.ru*, December 18, 2014, available from <http://en.kremlin.ru/events/president/news/47250>.

27. "Statement of Admiral William E. Gortney, United States Navy Commander, United States Northern Command and North American Aerospace Defense Command Before the House Armed Services Committee Strategic Forces Subcommittee, April 14, 2016," Washington, DC, available from <http://docs.house.gov/>

meetings/AS/AS29/20160414/104621/HHRG-114-AS29-Wstate-GortneyB-20160414.pdf.

28. Steven Pifer, "Pay Attention, America: Russia Is Upgrading Its Military," *The National Interest*, February 3, 2016, available from <http://nationalinterest.org/feature/pay-attention-america-russia-upgrading-its-military-15094>.

29. Robert Work and James Winnefeld, "Statement of Robert Work, Deputy Secretary of Defense and Admiral James Winnefeld, Vice Chairman of the Joint Chiefs of Staff before the House Committee on Armed Services," Washington, DC, June 25, 2015, p. 4, available from <http://docs.house.gov/meetings/as/as00/20150625/103669/hhr-114-as00-wstate-winnefeldjrusnj-20150625.pdf>, accessed October 14, 2015.

30. "Statement of Robert Scher, Assistant Secretary of Defense for Strategy, Plans, and Capabilities before the House Armed Services Subcommittee on Strategic Forces," Washington, DC, March 2, 2016, p. 3, available from <http://docs.house.gov/meetings/AS/AS29/20160302/104619/HHRG-114-AS29-Wstate-ScherR-20160302.pdf>.

31. *Ibid.*

32. "Opening Statement -- House Appropriations Committee-Defense (FY 2017 Budget Request) as Delivered by Secretary of Defense Ash Carter," Washington, DC, February 25, 2016, available from <http://www.defense.gov/News/Speeches/Speech-View/Article/673093/opening-statement-house-appropriations-committee-defense-fy-2017-budget-request>.

33. Robert Burns and Josh Lederman, "US defense secretary says Russia is 'nuclear saber-rattling'," Associated Press, May 3, 2016, available from <https://www.sandiegouniontribune.com/sdut-defense-secy-carter-says-russia-is-nuclear-saber-2016may03-story.html>.

34. Jens Stoltenberg, "Adapting to a changed security environment," Speech, Washington, DC: Center for Strategic and International Studies, May 27, 2015, available from http://www.nato.int/cps/en/natohq/opinions_120166.htm, accessed October 14, 2015.

35. "Speech by NATO Secretary General Jens Stoltenberg at the Munich Security Conference," NATO, February 13, 2016, available from http://www.nato.int/cps/en/natohq/opinions_128047.htm.

36. "The Latest Security Challenges Facing NATO," London, UK: Royal United Services Institute, February 20, 2015, available from <https://rusi.org/multimedialatest-security-challenges-facing-nato>.

37. "Testimony Prepared by Dr. Keith B. Payne Professor and Head, Graduate Department of Defense and Strategic Studies Missouri State University Commissioner, Congressional Strategic Posture Commission," Before the United States Senate Appropriations Subcommittee on Energy and Water Development, Washington, DC, July 25, 2012, available from <http://www.nipp.org/wp-content/uploads/2014/12/July-25-testimony-for-web.pdf>.

38. "Foreign Nuclear Developments: A Gathering Storm," Fairfax, VA: National Institute Press, 2015, pp. 6-7, available from <http://www.nipp.org/wp-content/uploads/2015/07/Foreign-Nuclear-Developments-7.15.pdf>.

39. "Testimony Prepared by Dr. Keith B. Payne."

40. Robert Bridge, "Border Alert: Nuke War Risk Rising, Russia Warns," RT News, November 17, 2011, available from <http://rt.com/politics/makarov-nuclear-russia-nato-575/>.

41. Julian Isherwood, "Russia Warns Denmark Its Warships Could Become Nuclear Targets," *The Telegraph*, March 21, 2015, available from <https://www.telegraph.co.uk/news/worldnews/europe/denmark/11487509/Russia-warns-Denmark-its-warships-could-become-nuclear-targets.html>.

42. Ibid.; Keith B. Payne, "Putin Wields the Nuclear Threat—and Plays with Fire," *National Review*, June 30, 2015, available from <http://www.nationalreview.com/article/420510/russias-nuclear-strategy-coercion-and-intimidation>, accessed October 14, 2015; National Institute for Public Policy, *Russia's Nuclear Posture*, Fairfax, VA: National Institute Press, 2015, available from <http://www.nipp.org/wp-content/uploads/2015/04/Russias-Nuclear-Posture.pdf>, accessed October 14, 2015.

43. Secretary of Defense Chuck Hagel, "Press Conference by Secretary Hagel at NATO Headquarters, Brussels, Belgium," February 5, 2015, available from <http://www.defense.gov/transcripts/transcript.aspx?transcriptid=5587>.

44. Marco Giannangeli, "Intercepted Russian bomber was carrying a nuclear missile over the Channel," *Express*, February 1, 2015, available from <http://www.express.co.uk/news/uk/555454/Intercepted-Russian-bomber-was-carrying-a-nuclear-missile-over-the-Channel>.

45. Nikolai N. Sokov, "The Evolving Role of Nuclear Weapons in Russia's Security Policy," in Cristina Hansell and William C. Potter, eds., *Engaging China and Russia on Nuclear Disarmament*, CNS Occasional Paper #15, March 2009, Monterey, CA: James Martin Center for Nonproliferation Studies, Monterey Institute of International Studies, available from <http://bit.ly/op15-nonproliferation-org>.

46. Vladimir Sokirko, "Top-ol, Top-ol!!" *Moskovskiy Komsomolts*, December 23, 1999.

47. Simon Saradzhyan, *Russia's Non-strategic Nuclear Weapons in Their Current Configuration and Posture: A Strategic Asset or Liability?* Cambridge, MA: Harvard Belfer Center, January 2010, p. 18, available from <http://belfercenter.ksg.harvard.edu/files/russian-position-NSNWs.pdf>.

48. Pavel Felgenhauer, "Russia Seeks to Impose New ABM Treaty on the US by Developing BMD," *Eurasia Daily Monitor*, Vol. 7, Iss. 136, July 16, 2010, available from <https://jamestown.org/program/russia-seeks-to-impose-new-abm-treaty-on-the-us-by-developing-bmd/>; Oleg Falichev, "Vostok-2010: Beginning, Culmination, Epilogue: Biggest Russian Armed Forces Exercise Staged for Research Purposes," trans. World Press Connection, *Voyenno-Promyshlennyi Kuryer Online*, July 16, 2010.

49. John W. Parker, *Russia's Revival: Ambitions, Limitations, and Opportunities for the United States*, Strategic Perspectives No. 3, Washington, DC: Center for Strategic Research, Institute for National Strategic Studies, National Defense University, January 2011, p. 23, available from <https://ndupress.ndu.edu/Publications/>

Article/717887/russias-revival-ambitions-limitations-and-opportunities-for-the-united-states/.

50. Roger McDermott, "Vostok 2014 and Russia's Hypothetical Enemies (Part Two)," *Eurasia Daily Monitor*, Vol. 11, Iss. 172, September 30, 2014, available from <https://jamestown.org/program/vostok-2014-and-russias-hypothetical-enemies-part-two/>.

51. *Ibid.*

52. Jens Stoltenberg, *The Secretary General's Annual Report 2015*, Brussels, Belgium: NATO, January 2016, p. 18, available from http://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2016_01/20160128_SG_AnnualReport_2015_en.pdf.

53. "Ten Regiments of Russia's RVSN Entered into Combat Service in Seven Regions (Part 2)," *Interfax*, January 26, 2016.

54. "Russian Armed Forces to Hold Over 2,000 Exercises in Summer," June 1, 2016, available from <https://sptnkne.ws/h2sh>.

55. "Russian Military Practices Massive Launch under Attack Strike under Putin's Supervision (Article 2)," *Interfax*, May 8, 2014.

56. Oleg Vladykin, "Readiness for Massive Nuclear Attack: Large-Scale Strategic Missile Troops Exercise," *Nezavisimaya Gazeta*, March 26, 2014, available from http://www.ng.ru/armies/2014-03-26/6_strike.html.

57. "Gen. Goldfein Testifies on Current State of Readiness of U.S. Forces," *Targeted News Service*, March 15, 2016; Jack Moore, "Clapper: Sequestration 'Quite Damaging' to National Intelligence," *Federal News Network*, February 15, 2013, available from http://federalnewsradio.com/1104/3226282/clapper_sequestration_quite_damaging_to_national_intelligence; Lindsey Neas, "Sequestration Has Dramatically Reduced the U.S. Military's Combat Readiness," *Saint Paul Pioneer Press*, April 26, 2015, available from <https://www.twincities.com/2015/04/26/lindsey-neas-sequestration-has-dramatically-reduced-the-u-s-militarys-combat-readiness/>.

58. Mark B. Schneider, "The Triad's Uncertain Future," *The Journal of International Security Affairs*, No. 23, Fall/Winter 2012,

pp. 23-24, available from <http://www.securityaffairs.org/sites/default/files/issues/archives/FW2012covertocover.pdf>.

59. "Sen. John McCain Holds a Hearing on Department of Defense Budget Posture," Political Transcript Wire, March 18, 2016.

60. "Russia to Reach New START Ceilings by 2028 (Part 2)," Interfax, January 14, 2011.

61. "New START Treaty Aggregate Numbers of Russian and US Strategic Offensive Arms1 (Fact Sheet)," Ministry of Foreign Affairs of the Russian Federation, June 27, 2011, available from http://www.mid.ru/en/web/guest/maps/us/-/asset_publisher/unVXBbj4Z6e8/content/id/202058; "New START Treaty Aggregate Numbers of Strategic Offensive Arms," Washington, DC: Bureau of Arms Control, Verification, and Compliance, U.S. Department of State, April 1, 2016, available from <https://2009-2017.state.gov/t/avc/rls/2016/255377.htm>.

62. Ibid.

63. Bill Gertz, "Russia Doubling Nuclear Warheads: New multiple-warhead missiles to break arms treaty limit," *The Washington Free Beacon*, April 1, 2016, available from <http://freebeacon.com/national-security/russia-doubling-nuclear-warheads/>.

64. "Russia threatens to quit START as US deploys Aegis destroyer to Spain," RT News, February 2, 2014, available from <https://on.rt.com/tec5cc>; "Diplomat Says Russia May Review START, Awaits Details of Alleged INF Violations," *RIA Novosti*, January 13, 2015.

65. "Annual Report on Implementation of the New START Treaty," Washington, DC: U.S. Department of State, January 15, 2015, available from <https://2009-2017.state.gov/t/avc/rls/rpt/2015/243230.htm>.

66. "New START Nuclear Arms Reduction Treaty Between Russia, US in Details," *Sputnik News*, April 8, 2015, available from <https://sptnkne.ws/h2td>, accessed October 14, 2015.

67. Hans M. Kristensen and Robert S. Norris, "Russian nuclear forces, 2015," *Bulletin of the Atomic Scientists*, Vol. 71, No. 3, 2015, p. 85, available from <http://bos.sagepub.com/content/71/3/84.full.pdf+html>, accessed October 14, 2015.

68. "Russia to Renew Production of Tu-160 'Blackjack' Strategic Bomber," *Sputnik News*, April 29, 2015, available from <http://sputniknews.com/military/20150429/1021514706.html>, accessed October 14, 2015.

69. "Some 400 ICBMs Are On Combat Duty In Russia - RVSN Commander," *Interfax*, December 16, 2014.

70. Pavel Podvig, "Tracking down road-mobile missiles," Russian strategic nuclear forces, January 13, 2015, available from http://russianforces.org/blog/2015/01/tracking_down_road-mobile_miss.shtml.

71. "Meeting with members of political parties represented in the State Duma," *Kremlin.ru*, August 14, 2014, available from <http://eng.kremlin.ru/transcripts/22820>, accessed October 14, 2015.

72. Piotr Butowski, "Russia's Air Force 2025," *Air International*, January 2014, pp. 98-99.

73. Mark B. Schneider, *New START: The Anatomy of a Failed Negotiation*, Fairfax, VA: National Institute Press, July 2012, pp. 5-6, available from <http://www.nipp.org/wp-content/uploads/2014/12/New-start.pdf>.

74. Schneider, "The Triad's Uncertain Future," pp. 27-28; Mark B. Schneider and Peter Huessy, "Russian Deployment of Missile Defenses Hidden in Plain Sight," New York: Gatestone Institute, February 18, 2013, available from <http://www.gatestoneinstitute.org/3590/russia-missile-defense>.

75. Keith B. Payne and Mark B. Schneider, "The Nuclear Treaty Russia Won't Stop Violating: Why has Washington looked the other way as Moscow revived Cold War weaponry?" *The Wall Street Journal*, February 11, 2014, available from <http://www.nipp.org/wp-content/uploads/2014/11/The-Nuclear-Treaty-WSJ-Payne-Schneider.pdf>.

76. *Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments*, Washington, DC: U.S. Department of State, July 2014, p. 8, available from <http://www.state.gov/documents/organization/230108.pdf>.

77. Mark B. Schneider, *Confirmation of Russian Violation and Circumvention of the INF Treaty*, National Institute Information Series, No. 360, Fairfax, VA: National Institute for Public Policy, February 2014, p. 12, available from <http://www.nipp.org/wp-content/uploads/2014/11/Confirmation-of-Russian-Violations-of-the-INF-Treaty8.pdf>.

78. "Rose E. Gottemoeller, Under Secretary of Arms Control and International Security, Statement for the Record Joint Hearing House Foreign Affairs Committee, Subcommittee on Terrorism, Nonproliferation, and Trade, House Armed Services Committee, Subcommittee on Strategic Forces Rayburn House Office Building," December 1, 2015, p. 3, available from <http://docs.house.gov/meetings/FA/FA18/20151201/104226/HHRG-114-FA18-Wstate-GottemoellerR-20151201.pdf>.

79. "Statement of Honorable Brian P. Mckeon, Principal Deputy Under Secretary of Defense for Policy, Before the House Committee on Armed Services Subcommittee on Strategic Forces and Committee on Foreign Affairs, Subcommittee on Terrorism, Nonproliferation, and Trade, December 1, 2015," available from <http://docs.house.gov/meetings/FA/FA18/20151201/104226/HHRG-114-FA18-Wstate-McKeonB-20151201.pdf>.

80. Michael R. Gordon, "U.S. Says Russia Tested Missile, Despite Treaty," *The New York Times*, January 29, 2014, available from <http://www.nytimes.com/2014/01/30/world/europe/us-says-russia-tested-missile-despite-treaty.html>.

81. Payne and Schneider.

82. Jerome Cartillier and Jo Biddle, Agence France-Presse (AFP), "US calls on Moscow to get rid of banned arms," Yahoo News, July 29, 2014, available from <https://www.yahoo.com/news/russia-violated-arms-treaty-testing-cruise-missile-us-002749693.html>.

83. Schneider, *Confirmation of Russian Violation and Circumvention of the INF Treaty*, pp. 4-6.

84. *Ibid.*, pp. 6-7, 9.

85. Felgenhauer, "Russia Seeks to Impose New ABM Treaty on the US by Developing BMD."

86. Schneider, *Confirmation of Russian Violation and Circumvention of the INF Treaty*, p. 18.

87. Pavel Felgenhauer, "Moscow Is Ready to Supply Iran With Powerful S-300 Missiles," *Eurasia Daily Monitor*, Vol. 12, Iss. 71, April 16, 2015, available from <https://jamestown.org/program/moscow-is-ready-to-supply-iran-with-powerful-s-300-missiles/>.

88. *Ibid.*

89. "Russian army to get sixth S-400 missile system by year end - Defense Ministry," TASS, April 10, 2016, available from <http://tass.ru/en/defense/868550>; "Russian Armed Forces will get five S-400 air defense systems in September-October 2016," TASS, February 29, 2016, available from <http://tass.ru/en/defense/859641>.

90. "In a Broad Context," *Krasnaya Zvezda*, April 29, 2011, available from <http://www.dialog.com/proquestdialog/>.

91. Kristensen and Norris.

92. Michael R. Gordon, "Russia Deploys Missile, Violating Treaty and Challenging Trump," *The New York Times*, February 14, 2017, available from <https://www.nytimes.com/2017/02/14/world/europe/russia-cruise-missile-arms-control-treaty.html>; Harry B. Harris, Jr., "WEST 2017 Keynote: 'The View from the Indo-Asia-Pacific'," U.S. Indo-Pacific Command, February 21, 2017, available from <http://www.pacom.mil/Media/Speeches-Testimony/Article/1089966/west-2017-keynote-the-view-from-the-indo-asia-pacific/>; Steve Holland, "Trump wants to make sure U.S. nuclear arsenal at 'top of the pack'," Reuters, February 23, 2017, available from <https://www.reuters.com/article/us-usa-trump-exclusive-idUSKBN16221F>.

93. Mark Schneider, "The Future of the U.S. Nuclear Deterrent," *Comparative Strategy*, Vol. 27, Iss. 4, October 31, 2008, p. 349, available from <http://www.tandfonline.com/doi/abs/10.1080/01495930802358539>.

94. William J. Perry and James R. Schlesinger, *America's Strategic Posture - The Final Report of the Congressional Commission on the Strategic Posture of the United States*, Washington, DC: U.S. Institute of Peace, May 1, 2009, p. 83, available from https://www.usip.org/sites/default/files/America%27s_Strategic_Posture_Auth_Ed.pdf.

95. Schneider, "The Future of the U.S. Nuclear Deterrent," p. 349.

96. Ibid.

97. Alexei Fenenko, "Russia and the Future of the CTBT," *Rossiyskaya Gazeta*, November 3, 2010, available from https://www.rbth.com/articles/2010/11/03/russia_and_the_future_of_the_ctbt04851.

98. "Russia: Developing New Nuclear Warheads at Novaya Zemlya?" Washington, DC: Office of Russian and European Analysis, Central Intelligence Agency, July 2, 1999, available from <https://nsarchive2.gwu.edu/NSAEBB/NSAEBB200/19990702.pdf>.

99. John S. Foster, "Future Possible Paths for the Nuclear Weapons Complex," paper presented to the Strategic Weapons in the 21st Century Conference, co-hosted by Lawrence Livermore National Laboratory and Los Alamos National Laboratory, Washington, DC, on January 22, 2016, p. 9.

100. "Moscow Emphasizes Quality of its Nuclear Potential," Press Bulletin of the Embassy of the Russian Federation, Embassy of Russia in Ghana, January 13, 2005, available from <https://web.archive.org/web/20050315122024/http://www.ghana.mid.ru/nfr/nfr331.html>.

101. Schneider, "The Future of the U.S. Nuclear Deterrent," p. 347.

102. "Nuclear Munitions to be Improved and Revitalized—Russian Federation Ministry of Defense," *RIA Novosti*, September 4, 2009 (trans. by World News Connection).

103. Central Intelligence Agency (CIA), "Evidence of Russian Development of New Subkiloton Nuclear Warheads [Redacted]," Intelligence Memorandum, Washington, DC: Office of Transnational Issues, Central Intelligence Agency, August 30, 2000, approved for release October 2005, p. 6, available from http://www.foia.cia.gov/sites/default/files/document_conversions/89801/

DOC_0001260463.pdf; Robert R. Monroe, "A Perfect Storm over Nuclear Weapons," *Air & Space Power Journal*, Vol. 23, No. 3, Fall 2009, available from http://www.airuniversity.af.mil/Portals/10/ASP/journals/Volume-23_Issue-1-4/2009_Vol23_No3.pdf; Schneider, *The Nuclear Forces and Doctrine of the Russian Federation*, pp. 15-16.

104. Perry and Schlesinger, p. 12.

105. "Russian Pundit Litovkin Argues Case of Bulava," *Ekho Moskvy Radio*, July 17, 2009, available from <http://www.proquest.com>; Andrei Kislyakov, "Does Russia need a 'half-baked' missile and another new tank?" *Sputnik News*, January 15, 2008, available from <https://sputniknews.com/analysis/2008011596728277/>; Ilya Kramnik, "Nevsky and Novomoskovsk: Two submarines for Putin," *RIA Novosti*, December 15, 2010, available from <http://www.freerepublic.com/focus/f-news/2642985/posts>.

106. Schneider, "The Future of the U.S. Nuclear Deterrent," p. 348.

107. Ibid.

108. "Document 31: Office of Russian and European Analysis, Central Intelligence Agency. Russia: Developing New Nuclear Warheads at Novaya Zemlya?, July 2, 1999," MORI Doc ID: 1260458, in Jeffrey Richelson, ed., *U.S. Intelligence on Russian and Chinese Nuclear Testing Activities, 1990-2000: Prospects of Comprehensive Test Ban Treaty Led China to Accelerate Testing Schedule*, National Security Archive Electronic Briefing Book No. 200, National Security Archive, September 22, 2006, p. 7, available from <http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB200/index.htm>.

109. CIA, "Evidence of Russian Development of New Subkiloton Nuclear Warheads [Redacted]," p. 4.

110. U.S. Department of Energy and U.S. Department of Defense, *National Security and Nuclear Weapons in the 21st Century*, Washington, DC: U.S. Department of Energy and U.S. Department of Defense, September 2008, p. 8, available from <https://carnegieendowment.org/2008/09/01/national-security-and-nuclear-weapons-in-21st-century-pub-22666>.

111. Schneider, *The Nuclear Forces and Doctrine of the Russian Federation*, p. 14; Robert G. Joseph, "Second to One," *National Review*, October 17, 2011, posted online July 2, 2012, available from <http://www.nationalreview.com/articles/304310/second-one-robert-g-joseph>.

112. "James N. Miller, Principal Deputy Under Secretary of Defense for Policy, U.S. Department of Defense," Statement before the House Committee on Armed Services, November 2, 2011, available from https://fas.org/irp/congress/2011_hr/nw-posture.pdf.

113. "New RF-US Agt to replace START to be Concluded before Year End - FM," ITAR-TASS, March 9, 2009.

114. "Obama Advisor Gary Samore: 'The Ball is Very Much in Tehran's Court'," Radio Free Europe/Radio Liberty, April 14, 2011, available from http://www.rferl.org/content/interviewsamore_russia_iran_us_policy/3557326.html.

115. Aleksey Arbatov, "Tactical Nuclear Weapons: Problems and Solutions: Strategic Offensive Weapon Reductions Could Extend to Nonstrategic Munitions," *Voyenno-Promyshlenny Nezavisimoye*, May 20, 2011, available from <http://www.dialog.com/proquestdialog/>; Aleksey Arbatov, "'Concepts': Nonstrategic Nuclear Weapons; Dilemmas and Approaches; The Path to a Nuclear-Free World Promises To Be Long," *Moscow Nezavisimoye Voyennoye Obozreniye*, May 20, 2011 (trans. by World News Connection).

116. "Army Brigade To Be Equipped With Iskander Systems This Year—Commander," ITAR-TASS, September 29, 2009; "Ground Forces Personnel Will Be Armed with Iskanders," *Moscow Nezavisimoye Voyennoye Obozreniye*, October 29, 2009; "Russia: General Staff Chief Gerasimov Directs Key Personnel Video Conference on Strategic Exercise," Ministry of Defence of the Russian Federation, November 1, 2013; "Iskander, Tochka-U Tactical Missiles Launched In Russia's Snap Drill," Interfax-AVN, October 30, 2013.

117. "Russian Strategic Aviation to be Reinforced with Su-34 Frontline Bombers," Interfax-AVN, March 19, 2012.

118. "Meeting with Defence Minister Sergei Shoigu," Kremlin.ru, December 8, 2015, available from <http://en.kremlin.ru/events/president/news/50892>; "In the course of the last 24 hours, aircraft of the Russian Aerospace Forces have performed 82 combat sorties engaging 204 terrorist objects in Syria," Ministry of Defence of the Russian Federation, December 9, 2015, available from http://eng.mil.ru/en/news_page/country/more.htm?id=12071355@egNews.

119. "Meeting with Defence Minister Sergei Shoigu"; "In the course of the last 24 hours, aircraft of the Russian Aerospace Forces have performed 82 combat sorties engaging 204 terrorist objects in Syria."

120. Schneider, *The Nuclear Forces and Doctrine of the Russian Federation*, pp. 16-17.

121. "Russian TV shows howitzer capable of firing low-yield nuclear warheads," BBC Monitoring Former Soviet Union, April 11, 2004, available from <http://www.dialog.com/proquestdialog/>.

122. Kristensen and Norris, p. 8.

123. "Academician Yevgeny Nikolaevich Avrorin, "Science is what can be done, and technical science is what needs to be done'," Moscow, Russia: Russian Federal Nuclear Center, All-Russian Scientific Research Institute of Experimental Physics, April 10, 2013, available from <http://www.atomic-energy.ru/interviews/2013/04/10/41068>.

CHAPTER 10. FUTURE RUSSIAN STRATEGIC NUCLEAR AND NON-NUCLEAR FORCES: 2022

James R. Howe

This chapter is based on a briefing presented to the American Foreign Policy Council Conference held on May 9-10, 2016, in Washington, DC.

Russia has embarked on an unprecedented strategic nuclear force build-up in an era of arms control and has given its strategic nuclear forces the first priority in funding and resource allocation. Russia denies it is in an arms race, yet it is unilaterally undertaking a very rapid and massive build-up of its strategic nuclear offensive forces and Aerospace Defense Forces (VKO) during a period of arms control reductions. These forces will be completely modernized by 2022. Why the urgency? The United States has plans for modernization of its nuclear forces, but the earliest replacements will not be fielded until the late 2020s, and the U.S. modernization process will take about 30 years, with projected force levels reflecting current New Strategic Arms Reduction Treaty (New START) limits, or even lower. In contrast, while Russian strategic nuclear delivery vehicles will likely stay within New START limits, the 2022 strategic nuclear force's (SNFs) warhead (WH) levels will likely significantly exceed New START levels based on planned WH loadings.

This chapter will focus on the modernization and build-up of the strategic offensive forces, nuclear and non-nuclear kinetic, and is based on what life extension, modernization, and new missile production Russia has done along with its stated plans for continuing force modernization and new intercontinental/submarine launched ballistic missile (IC/SLBM)

production. For the most part, Russian modernization of their SNF and VKO is reported accurately in the Russian and Western press. Cyberwarfare capabilities and weapons are not reported and are highly classified. Due to cyberwarfare's capability to disrupt, degrade, and physically destroy military and critical infrastructure targets, cyber forces will likely become a component of the SNF, so a brief comment on cyberwarfare is warranted.

Russia is believed to be a peer competitor to the United States in cyberwarfare, and cyberwarfare is discussed here as it may become the dominant instrument of national power to be employed, displacing a portion of the missile force, nuclear and non-nuclear. Modern societies and militaries run on electrons, and the most cost-effective way to kill electrons is with cyberattacks and nuclear or non-nuclear electromagnetic pulse (EMP). Cyberwarfare, with its low barriers to entry, has become increasingly important; with its ability to disrupt, degrade, and physically destroy military and critical infrastructure targets, it may become even more important than using nuclear and kinetic warfare. However, cyberwarfare may also be far more fragile, as defenses may be able to be rapidly implemented. Cyberwarfare is very similar to electronic warfare—as soon as the attacker detects a weakness in an adversary's defenses, the defender potentially can protect it. However, currently, cyber offense dominates cyber defense, because it can take hours, days, or months to patch a vulnerability. In addition, while it may take months or years to prepare the battlefield and maintain access to it for an attack, the attack itself can be executed at the speed of light.

Russia has developed outstanding offensive and defensive cyber operations and weapons. Future research should address the rapidly expanding role of cyberwarfare in Russian strategic nuclear and non-nuclear thought and operations, and the implications for the weapon mix, force levels, and timing of nuclear, non-nuclear, and cyber forces in future scenarios. As illustrated in figure 10-1, this chapter will focus on the strategic offense nuclear and non-nuclear kinetic systems. However, the VKO are closely interrelated with the Strategic Nuclear Offense Forces, as the single most important mission of the VKO is protecting the strategic forces against surprise attack. Both will be integrated together with battle management command, control, and communications (BMC3), and integrated cyber radio electronic combat will be a significant component of all of them.

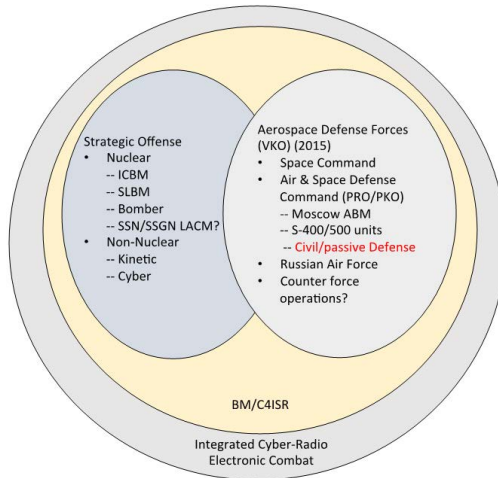


Figure 10-1. Russian Integrated Strategic Offense and Defense System Will Be Completely Modernized by 2022 – Why the Urgency?

Russia has identified aerospace as the center of gravity in future war.¹ While the focus of this chapter is on Russian strategic offensive nuclear and non-nuclear forces, it is necessary to discuss the very close inter-relationship of the SNF with the VKO, which protects and enables Russia's SNF, and thereby significantly affects the SNF force levels and mix. The VKO will also be largely modernized by 2022, as the strategic defense component has second priority in modernization. Russia plans to spend US\$55.3 billion by 2020 in building up aerospace defense weapons to ensure they are capable of detecting existing and future types of air and space attacks (100 new research and development [R&D] projects).²

On December 1, 2011, Russia created the VKO, integrating Space and Air/Missile Defense Forces.³ Senior Russian officials have stated that aerospace threats are the greatest danger to Russian security, and according to General Anatoly Kornukov (Ret.), former Air Forces (VVS) Commander in Chief (CINC), "We are 20-30 years behind our possible enemy."⁴ A brief overview of the VKO is provided for an understanding of the importance of and relationship with the SNF.

The VKO have a wide range of functions, including direct support to the SNF, and the most important among them are the following:

- Threat missile launch detection to alert defenses and give decision makers enough time to determine SNF retaliation launch options.
- Missile defense of SNF.
- Missile defense of the major command control stations and governmental facilities, armed formations, the most important industrial and economic centers and other installations against an enemy's joint air and space-based strike weapons (SVKN) in the zone of probable damage.

- Monitoring space objects and identification of potential threats to the Russian Federation in space and from space.
- Conduct anti-satellite (ASAT) operations against enemy spacecraft that can target Russian SNF, or support enemy attacks on the SNF.
- Carrying out spacecraft launches and controlling them. SNF depends on spacecraft for position/navigation/timing for accuracy of WHs and communications; communications satellites for command and control; reconnaissance and electronic intelligence satellites for targeting; weather satellites for force employment; and mapping satellites for accurate target locations. All of these systems will be modernized by 2022.

Russia has conducted extensive research on anti-satellite (ASAT) systems (directed energy weapons [DEW] and kinetic) and deployed kinetic kill ASAT systems in the past, but currently, there are no deployed ASAT systems (except cyber and reconnaissance) even though “such work is being conducted in Russia.” Russia maintains the capability to “respond quickly and adequately.” There is still uncertainty as to the operational status of Russia’s Tysklon-2 co-orbital ASAT and the Mig-31 air-launched ASAT.⁵ Recently a new direct ascent ASAT, the Nudol, was tested (December 2015),⁶ and in 2015, Russia restarted R&D of an airborne laser ASAT system based on the Il-76.⁷

Russia is also upgrading the Moscow anti-ballistic missile (ABM) system. The A-135 ABM system, which became operational in 1995, was nuclear and had an inherent ASAT capability for very low earth orbit (LEO) intercepts (about 200 kilometers). The system,

which was scheduled for completion in 2015, was being upgraded to the A-235 with 100 SH-08 Gazelle interceptors with a 100-kilometer range and an HE-Frag WH. A-235 will also have inherent ASAT capabilities for very low LEO intercepts and will be reinforced with the S-500.⁸

Deployment of the S-400 and S-500 air and missile defense systems will provide Russia a nationwide ballistic missile defense (BMD) capability by 2022. There will be 56 S-400 battalions with a mix of short, medium, and long-range missiles. The battalions could have 1,792-7,168 missiles on the transporter erector launchers (TELS) and loaders, and 10 S-500 battalion sets with 640-plus missiles. The S-400 has a limited IC/SLBM intercept capability with the 400-kilometer long-range missile and, given their deployment areas and numbers, the analysis indicates they may have limited effectiveness if cued by the Early Warning Radars.⁹ The S-500 is highly capable and was designed to intercept IC/SLBM re-entry vehicles (RVs), hypersonic vehicles, and very low LEO (less than 200 kilometers) satellites. The S-500 is capable of simultaneously engaging 10 ballistic missile targets out to 600 kilometers, with a 3-4 second response time, and reportedly can intercept maneuvering WHs.¹⁰ Plans are to produce 10 battalions of S-500 by 2020; however, two new plants to produce the S-500 have been completed, and production of S-500 units could be increased significantly.¹¹ The S-400 and S-500 systems are tied into the early warning sensor network and have highly capable radars and command and control systems supporting them. Both cyberwarfare and radio-electronic combat also play a significant role in air and missile defense.

Russia has an extensive BMD early warning system. The current Russian ground-based radars are being

replaced by 2020 with more capable Voronezh-M/DM/VP Radars, which can also provide tracking data for ASAT operations. The 10-satellite electrokinetic supercharging (EKS) early warning satellite system, part of the Unified Space System, will be launched by 2020. At the time of this writing, Russia was set to build a network of advanced laser-optical and radar stations by 2018 to improve space monitoring.¹² Russia's space observation and satellite control system consists of about 24 ground stations, 4-6 sea-based control stations, and 4 airborne control stations. Galitsino-2 is the control center, and Titov is the chief center for testing and control of space assets.¹³

Civil and passive defenses also come under the VKO. Russia has an extensive network of hardened underground facilities to minimize losses—an integral part of Russia's deterrence posture and nuclear war-fighting strategy. This network consists of more than 200 deep underground bunkers considered "weapon sinks" by the Central Intelligence Agency (CIA) and Joint Chiefs of Staff (JCS) targeting analysts.¹⁴ Several of the most important are the following. 1) Kosvinsky Mountain (nuclear survivable SNF alternate strategic command post).¹⁵ 2) Yamantau Mountain (more than \$6 billion spent by 2000 with "millions of square feet of underground facilities covering more than 400 square miles [approximate size of area within Washington, DC, beltway]). Yamantau will house more than 60,000 people, and, according to U.S. officials, "We have no clue as to what they are doing."¹⁶ 3) Sharapova and Checkov command and control centers south of Moscow are very large, deep underground shelters housing approximately 30,000 people each.

There is also a network of deep underground bunkers under Moscow (200-300 meters deep) connected

by Metro-2 (50-200 meters deep), a secret deep underground subway network with tracks to Sharapova, Checkov, and the Vnukovo-2 airfield, among others.¹⁷ Civil defense operated a network of 1,500 underground shelters that could protect 175,000 top party and government officials. *Russia Today* reported in 2010 that Moscow would build 5000 hard, underground shelters in Moscow by 2012. These hard and deep underground shelters function as a key warfighting asymmetry—the United States must keep back a “strategic reserve” of 400 megatons to deter Russia from attacking U.S. cities, where 80 percent of the U.S. population lives. By contrast, only 25 percent of Russia’s population lives in cities, so the United States is far more vulnerable and Russia can credibly threaten it. On July 1, 2015, then-Deputy Prime Minister Dmitry Rogozin stated that Civil Defense should be re-instated.¹⁸ This massive asymmetry in vulnerability arguably provides Russia a significant advantage in any potential crisis or conflict situations, enabling Russia to take far more risks. Russia takes nuclear war seriously—and is evidently preparing to fight and win a modern nuclear war using advanced technology weapons that keep the force applied consistent with the conflict’s objectives.

Given the urgency and scale of Russia’s nuclear force build-up, the first questions to ask are: Why? What is the rationale? and, What are some of the drivers behind Russia’s efforts to build-up a strategic nuclear superiority by 2022? To begin with, the Russian state is in decline, and there is little evidence that it will recover. Russia is facing severe demographic problems exacerbated by societal health and other issues which, in turn, affects the national security of Russia. The economy is based on high-cost extractive industries operating under severe climatic conditions,

and manufacturing is largely noncompetitive. These issues may threaten Russia's global competitive position and the continued existence of Russia as the state we currently know by the early 2020s. Siberia and the Russian Far East could be lost to China's enormous appetite for resources and living space unless Russia can maintain a strong nuclear deterrent.

Historically, Russia believed that a strong military force was the foundation for national security, power, and influence, and that the economy and welfare of the people were subservient to the military. Current Russian conventional forces are very weak compared to potential threats Russia believes it faces, as much of the armed forces equipment is obsolete, and needed military reforms have yet to be realized. Russia's armed forces, at the time of this writing, number 771,000 men (230,000 Army), and they have a US\$84.5 billion annual budget supported by a national economy of US\$1.86 trillion. By contrast, the North Atlantic Treaty Organization (NATO) Alliance has 3.6 million active military personnel and significant reserves, with an annual budget of US\$919 billion (approximately 10 times Russia's), and is supported by a US\$37.4 trillion economy (approximately 20 times Russia's).¹⁹

Then there are the Muslim states and China's massive military to the south. Russia has no allies and has little choice but to rely on strategic and theater nuclear forces to project influence and protect Russian national interests. The current Russian strategic and theater nuclear forces, together with the conventional military, should be more than sufficient to deter any attacks on the Russian homeland, bringing us back to the question of why Russia is building up its nuclear forces so rapidly and in the numbers projected.

The current Russian leadership believes that Russia's weakness encourages encirclement by enemies and potential "color revolutions," like those that

occurred in Georgia and Ukraine. Russian President Vladimir Putin believes this is the U.S. intent. President Putin's worldview is shaped by the belief that a hostile and predatory West surrounds Russia, and his rhetoric about Russian exceptionalism, the mission of civilization, a "Third Rome" endowed by God with the sacred mission of redeeming humanity, Russia as the world's moral and ideological leader, and the re-establishment of Russia's lost power and glory has strong support from the Russian people. President Putin stated that Russia's destiny is to be the leader of a greater Eurasia, from the Baltic to the Pacific. He believes that the West intends to interfere with Russia's historic mission and thwart its rightful "integration of the Eurasian space."²⁰ President Putin also believes that, while the West is economically and militarily strong, it is weak-willed and risk-adverse, providing opportunities for coercion and compellence. Russia has more at stake in its area of interest than NATO and consequently believes Russia has local escalation dominance over NATO up through nuclear warfare scenarios. Given asymmetries in geography and conflict objectives, Russia could also achieve strategic nuclear escalation dominance over the United States with its planned SNF build-up and deployed strategic defenses. President Putin's nature and strong inclination is to project military force to show greatness.²¹ President Putin's Russia, unlike former Soviet President Mikhail Gorbachev's, will not go quietly into the dustbin of history.

According to former U.S. Secretary of Defense (SECDEF) Robert Gates, President Putin has two strategic objectives: "Restore Russia to great-power status so that no problem in the world can be addressed without Russia's involvement and without Russia's agreement" and "create a buffer of states friendly to Russia

on the periphery of Russia.”²² President Putin also has stated, “large numbers of new threats are emerging,” to include resource wars.²³ Given Russia’s large store of natural resources, Russia may become a target of resource hungry states, with China posing a threat to Siberia and the Russian Far East. Senior Russian officials have also stated that resource wars may begin in the 2020s, with the Arctic being one of the critical areas. While Russia’s current military deployments in the Arctic may be primarily defensive in nature, Russia has also laid claim to disputed areas, and the presence of military power or actual occupation can help establish ownership or resolve disputes in Russia’s favor.

Russia is also very concerned about 1) the development of the U.S. prompt global strike system (PGSS) capabilities that allegedly could destroy Russian strategic nuclear forces in a surprise attack, and rapidly and decisively achieve conflict objectives; and, 2) the capability of the U.S. global ballistic missile defense system (GBMDS) to put at risk the capability of Russian IC/SLBM forces to penetrate U.S. defenses and negate their capability to deter the United States.²⁴ Both may create a new stage in the arms race, one that Russia does not have the resources to win. President Putin stated that Russia would not be drawn into an arms race, yet it appears the Russian SNF buildup is a counter to both the U.S. global missile defense and global strike capabilities, and Russia will have sufficient boosters for a Russian global strike system.²⁵ Russia has long feared the U.S. ability to develop rapidly and to field advanced technologies that make Russian systems obsolete and adversely affect Russia’s correlation of forces.

Russia has repeatedly stated concerns over the European Union (EU) and NATO’s eastward movement,

incorporating states of the former Soviet Union and adversely affecting the Russian concept of “the correlation of forces.” The U.S. establishment of the European Phased Adaptive Approach (EPAA) as a component of the U.S. GBMDS has further increased Russian fears of encirclement and domination by the West.²⁶ Consequently, the Russian National Security Doctrine of December 31, 2015, states NATO and the United States are the primary threat to Russian national interests.²⁷ Russia has to depend on nuclear weapons to deter threats to Russian national interests, as Russia would be unable to restore conventional capabilities in the near future. The cost to modernize Russia’s rapidly obsolescing conventional forces fully is far more than Russia’s budget can afford, even if oil prices recover to above US\$80 per barrel. The record of former state armament programs is not encouraging; for example, the state program for the development of arms for 2002-2010 only achieved 10-15 percent of its goals. The execution was undermined by insufficient financing for R&D, infrastructure modernization and production, an inefficient and ineffective defense sector, and pervasive corruption. According to a former chief military prosecutor, approximately one-fifth of all defense spending in 2011 was stolen.²⁸ Furthermore, reduced investments in the R&D sector in the last 25 years have adversely affected technology levels that could have been achieved. This is further exacerbated by the fact that the defense industry was spread throughout the Union of Soviet Socialist Republics (USSR) with many of the key technologies in Ukraine, and Russia has had to reconstitute its entire defense industry and supporting supply chain.

When the USSR collapsed, the military industrial complex (VPK) infrastructure was destroyed, and the

Russian defense industry has further declined with old dilapidated buildings and worn or obsolete production tools. Although more funding has been allocated, severe damage has been done to the VPK, and it will take years for it to recover its capability to produce the types and quality of armaments needed by Russia's conventional forces. Where Russia has made investments and does have a comparative advantage is in tactical and strategic missiles (ballistic and cruise), nuclear weapons, electronic warfare, radars, and air-defense systems. Russia's new Armata tank may be a technological advance in armored warfare.

Russia is taking actions for SNF life-extension, modernization, and new production to build-up the SNF. Russian nuclear doctrine provides the foundation for the Russian nuclear force modernization and build-up, and is driven by: "great power" status considerations; concerns that there will be conflict; concerns that future conflicts may be waged on Russian soil; and nuclear technology developments that have changed nuclear war by enabling the rational employment of advanced capability nuclear weapons to achieve conflict objectives. Developments in missile guidance accuracy, together with nuclear weapon technology developments, have enabled nuclear weapons once again to become an effective instrument of policy by ensuring that the force applied is consistent with conflict objectives. The goal is to return Russia to superpower status by the threat of precision low-yield nuclear strikes anywhere in the world—by "making the threat realistic."²⁹

Russia views nuclear weapons far differently than the United States does. Russia's view is embodied in statements such as "use of nuclear weapons to de-escalate conflicts" and "making nuclear weapons once again an instrument of policy," and by Russia's

development of qualitative new nuclear weapon capabilities that have political or military utility. Russia believes that low-yield precision “clean” nuclear weapons “provide a viable alternative to advanced conventional weapons.”³⁰ Clean nuclear weapons use a small amount (one kilogram or less) of plutonium (Pu) or highly enriched uranium (HEU) to ignite a deuterium/tritium mix to create a predominantly fusion explosion with minimal residual radiation. Explosive yields can range from as little as 10 tons of equivalent trinitrotoluene (TNT) to 1000 tons of TNT (one kiloton), and with available guidance accuracy can kill most targets of interest, to include hard intercontinental ballistic missile (ICBM) silos.

The combination of Russian theater nuclear forces (2,500-5,500 weapons) and strategic nuclear forces provides regional and global nuclear warfare capabilities, enabling Russia to exercise theater and global escalation dominance, and calls into question the viability of the U.S. extended deterrent umbrella over U.S. allies. Russia’s extensive nuclear weapon infrastructure and scientific capability support this doctrine. Russia has built over 55,000 nuclear weapons and retains an estimated capability of building 1,000-3,000 plus weapons per year. Current Russian WHs have to be refurbished every 10-15 years, so a robust workforce and modern facilities are maintained to ensure their serviceability. The Russian nuclear weapon infrastructure and technical expertise, together with a modernized missile force to deliver them, provides Russia a strong comparative advantage for the nuclear missions of deterrence, coercion and compellence, and warfighting.³¹ The robust Russian nuclear posture supports repeated Russian nuclear threats, exercises, and demonstrations, and places nuclear weapons at the center of Russian military strategy and national policy.

To achieve the objectives of returning Russia to great power status and defending Russia's national interests, on September 20, 2014, President Putin stated Russia's 2016-2025 weapons modernization program should focus on:

- Building a new array of offensive weapons to provide a "guaranteed nuclear deterrent," (President Putin and Russian General Valery Gerasimov believe SNF modernization has top priority, and is to be completed by 2022);
- Rearming strategic and long-range aviation;
- Creating an aerospace defense system; and,
- Developing high-precision conventional weapons (this possibly means implementing 6th generation non-contact warfare.)³²

Russia's goal is a superior correlation of forces provided by the SNF. Russia has and will use the threat of nuclear escalation to establish a sphere of influence and deter "resource wars" and armed response by adversaries (for example, Ukraine). Nuclear weapons are not immune to the evolution of technology. Viktor Mikhaylov, former Minister of Atomic Energy and First Deputy Prime Minister proposed creating a force of 10,000, low-yield, "clean," highly accurate nuclear weapons, which was confirmed by the CIA on June 22, 2000.³³ Boris Yeltsin reportedly signed a Presidential Decree on April 29, 1999, authorizing development.³⁴ Mikhaylov's goals for this force of advanced nuclear weapons were to "make the threat realistic . . . make nuclear weapons an instrument of policy . . . provide usable military force."³⁵ There is also "Evidence of Russian operational testing of new sub-kiloton nuclear warheads," confirmed by the CIA on August 30, 2000.³⁶ A force of 10,000 low-yield, clean, highly accurate

nuclear weapons is not a demonstration or deterrent force—it is a warfighting force—but is it theater, strategic, or both?

Of great interest, with implications for strategic nuclear war, indicating it will be both theater and strategic, was the statement by Colonel-General Vladimir Muravyev, then-Deputy CINC of the Strategic Rocket Forces of the Russian Federation (RVSF):

Strategic missile systems should be capable of conducting ‘surgical’ strikes . . . using both highly accurate, super-low yield nuclear weapons, as well as conventional ones . . . groupings of non-nuclear MBR (ICBM’s) and BRPL (SLBM’s) may appear [emphasis added].³⁷

Russia reportedly has deployed precision nuclear WHs with 50- to 200-ton yields on the SS-N-23 SLBM, as well as conventional WHs.³⁸

President Putin stated, “Russia is creating a new generation [of] nuclear weapons . . . these will be things which do not exist and are unlikely to exist in other nuclear powers.”³⁹ Russian nuclear laboratories have been researching the development of qualitatively new types of nuclear weapons, and Russian industry is developing new missile delivery systems. Examples of these are the drone intercontinental range torpedo reported in the press, with a multi-megaton WH for destroying naval bases and ports, and precision, low-yield, “clean” nuclear weapons that were earlier described. Russia has stated that they could use EMP weapons without precipitating nuclear war—“discrete” EMP weapons may only cover an area of tens of kilometers.⁴⁰ Russia also has neutron weapons, which are significantly more effective than U.S. neutron weapons.⁴¹ It is apparent that Russia is developing

a spectrum of nuclear weapons with tailored effects and the means to deliver them, allowing Russia to maintain escalation dominance all along the conflict spectrum—from de-escalating conflicts, to conducting theater and strategic warfare for vital national objectives, to major nuclear warfare up to the most destructive levels where the survival of the state is at risk.

It is apparent that Russia has a very different view of nuclear war than the United States does, and is developing the policy, doctrine, and forces to implement that viewpoint. For Russia, the most cost-effective way to deter the United States is with nuclear weapons. In any regional scenario, a U.S.-led coalition would be far more powerful than any conventional force Russia could mobilize. Russia's conventional forces are far behind the United States in modern equipment and the level of training needed to operate in current and future net-centric warfare effectively. Russia has a comparative advantage in nuclear forces, so this is the instrument of national power Russia must rely on to deter war—and, if they fail to deter, to wage war. If we look at the shape of nuclear war to come, technology developments have enabled the capability of nations to conduct future nuclear warfare in a wide variety of scenarios, and with a nuclear force capable of using “nuclear weapons as an instrument of policy,” which can “provide useable military force,” while still keeping force applied consistent with conflict objectives.⁴² The scale of nuclear war can range from major nuclear war, where state survival is at risk, down to limited nuclear war being conducted to achieve vital national interests. Nuclear weapon technology developments will also greatly influence the effectiveness of nuclear forces for deterrence, coercion, and threats. For limited nuclear warfare scenarios, the forces needed

for attacks on adversary military forces, bases, fleets, and critical infrastructure to achieve conflict objectives could consist of:

- Accurate, low-yield, “clean” weapons to kill targets;
- Neutron weapons to kill military personnel and leadership;
- EMP weapons (discrete and wide area) to kill electronics;
- X-Ray weapons to kill satellites and RVs (nuclear weapons may play a major role in future space warfare scenarios); and,
- Gamma rays and other tailored effects, the purpose of which is to be determined.

So what are Russia’s implementing activities? In 2012, President Putin stated, “Russia will build 400 new ICBM’s by 2022” (note: all with a 6-10 plus WH capability).⁴³ A simple calculation illustrates how many IC/SLBM nuclear WHs Russia could have deployed by 2022 due to SNF modernization, new production, and multiple independently targetable re-entry vehicles (MIRVs):

400 IC/SL × 4 RV’s = 1,600 WH
400 IC/SL × 7 RV’s = 2,800 WH
400 IC/SL × 10 RV’s = 4,000 WH
Plus approximately 50 SS-18/Sarmat×10/15=500/750WH
Plus refurbished *Delta IV*’s = 384-960 WH
Plus 30 “like new” SS-19 = 180 WH
Plus 78 SS-27 Mod 1 MIRV = 312-780
Plus SS-X-31 new liquid (12 RVs) = to be determined

This amounts to a minimum of 2,976 WHs, and a maximum of 6,670 WHs, plus another 800 or more bomber WHs. However, there is great uncertainty as

to numbers and types of missiles that Russia will actually deploy and the missions they will execute. Life extension and MIRVing of the existing missile force would allow for a much slower rate of new missile production by Russia – but it is not. Consequently, life extension and MIRVing to maximize near-term firepower and accelerating new production missile WH numbers/throw-weight will create a missile force that far exceeds New START limits (unless they are boost/glide vehicles [BGVs] which are not accountable) and raises questions about Russian intentions. Based on what Russian industry is producing in strategic nuclear missiles and aircraft, and what they say they will do, this chapter provides force structures for 2022, which give one view of the numbers and types of strategic offensive forces Russia may have, and the potential options for missions.

Looking at the Russian ICBM force illustrated in table 10-1, Russia is retiring the single WH SS-25 force of 360 by 2019 and the SS-18 Satan as they reach end of life around 2022.⁴⁴ The SS-19M3 was to be retired by 2019; however, the 30 unfueled SS-19s (6 RVs) that were in Ukraine storage and were returned to Russia in 2012 may stay in service until about 2030, or at least until the Sarmat, or SS-X-31 is deployed.⁴⁵ The 78 SS-27 (60 silo and 18 road-mobile) equipped with 1 RV has been tested with multiple RVs, and there are reports it may be upgraded to carry 4 to 7 RVs, and stay in service until 2027.⁴⁶

System	Attributed	2015		2022 (Full) ⁽²⁾		2022 (Start)		Comments
		WH	SNDV ⁽¹⁾	WH	SNDV	WH	SNDV	
SS-18 ICBM RS -20V	10	46	460					Retired by 2022. Replaced by RS-28.
RS-28 Sarmat	10	0		46	460	10 x 46	460	Replaced SS-18 IOC 2018-2020—10-15 + WH(c).
SS-19 (RS-18)	6	30	180	6 x 30	180	0	0	30 may stay in service until ~2030 400kt WH.
SS-25 (RS-12M)	1	72	72	0	0	0	0	Retired by 2020.
SS-27 (Silo) (RS-12M2)	1	60	60	7 x 60	420	1 x 60	60	Single RV 800k— May be replaced with 4-7 MIRV 2016 150-250 kt? WH. Stay in service until ~2030.
SS-27 (Mobile)	1	18	18	7 x 18	126	1 x 18	18	Stay in service until ~2030.
RS-24 Yars (Mobile)	4	63	252	7 x 114	756	4 x 114	432	RS-24 could carry 4, 7 150-250 kt? Or 10 MIRV w/75-100 kt WH. May be equipped w/“hypersonic maneuvering WH” MaRV? BGV?
RS-24 (Silo)	4	10	40	7 x 60	420	4 x 60	240	
RS-26 (Mobile)	4	0	0	7 x 38	266	4 x 38	152	IRBM? Kt?
SS-X-31	6-12+?	0	0	?	?	?	?	New medium liquid ICBM 2018-2020 IOC. (12 RV's?) kt?
Sub-totals		299	1082	366	2670	336	1386	

Table 10-1. Russian ICBM Force: Current and Forecast Force Levels – One View

However, four new ICBMs are being produced at a rapid rate. These include:

1. RS-24 (mobile, silo, and the rail-based Barguzin) is attributed as having 4 RVs, though it may carry 7-10 RVs.
2. RS-26 IR/ICBM— tested initially to ICBM range (5,800 kilometers), and subsequently, all test flights were under the 5,500 New START range limit. It is believed to be the first two stages of the RS-24, although use of a new energetic fuel has also been mentioned, as well as the use of

nanotechnologies to reduce weight. It can carry four to seven RVs and may be “equipped with hypersonic maneuvering units” however, it remains in the developmental phase.⁴⁷

3. RS-28 Sarmat, heavy liquid missile is replacing the SS-18 reportedly on a one-for-one basis. Designed by Makeyev Design Bureau and produced at Krasnoyarsk (which builds the liquid SLBMs), it is being upgraded for mass production. Production approval was received in October 2012, and is now in the active testing phases. The Sarmat has a 9,000-kilogram throw-weight and carries a payload similar to the SS-18, yet weighs less (potentially only 180 tons, or even as low as 100 tons), which indicates a new energetic propellant and possibly the use of nanomaterials to reduce weight. The RS-28 can carry 10 heavy or 15 medium-yield WHs, or some combination of WHs and a wide variety of highly effective penetration countermeasures. The Sarmat is a potential wildcard, with a 9,000-kilogram throw-weight (50 percent bus and 50 percent WHs). The Sarmat could carry up to 50 90-kilogram WH with a 75-100 kiloton-yield (Bulava-class WH); 50 missiles × 50 RVs = 2,500 WHs. It could carry 8-10 500-kilogram non-nuclear WHs/missiles. The Sarmat is very long-range and can fly over both the north and south poles. The Sarmat may also carry the 4202 hypersonic vehicle (potentially designated YU-74), and according to the Commander of the RVSN Sergei Karakayev, “may develop a non-nuclear precision guided payload capability with global range.”⁴⁸

4. A new medium liquid missile potentially designated RS-31 (SS-X-29) designed to replace the SS-19 carrying up to 12 RVs is to be produced at Khrunichev (which produces the Angara and Proton space launch vehicles) with a 2018-2020 IOC. Numbers of SS-X-31 to be produced are unknown, but there are likely to be at least 50 deployed missiles.⁴⁹

The Votkinsk production plant is capable of producing 40-50 ICBMs per year (approximately 30 in 2013, 40 in 2014, 50 in 2015, and 60 in 2016), enabling Russia to produce over 400 IC/SLBMs by 2022. The following rationale was used to create the IC/SLBM force structure by year from 2012 to 2022, using stated IOC dates, applying industry standard production ramp-ups for each missile, subtracting the test missiles, and ensuring that Votkinsk's assumed production rate of 40 per month was not exceeded. The Bulava SLBM needs 168 missiles (148 deployed and 20 for test and evaluation [T&E]), so $400 - 168 = 232$ missiles to be allocated to ICBMs (212 deployed plus 20 T&E). This was further broken down to 114 RS-24 mobile; 60 RS-24 silo; and 38 RS-26 IR/ICBM. If the Barguzin rail mobile is deployed, missiles will likely come from the RS-24 road-mobile allocation.

The new RS-28 that is to be produced at Krasnoyarsk and the SS-19 follow-on, the SS-X-31 to be produced at Khrunichev were not counted in the 400, as the decision to produce them came well after President Putin's announcement of the 400 ICBMs to be produced, and Votkinsk has the capacity to produce 400 IC/SLBMs by 2022 (approximately 490 if a rate of 50 per year is maintained).⁵⁰ It is also important to note that most of the Bulava and RS-24 testing occurred prior to 2012, so 20 missiles each for T&E for the period to 2022 is

reasonable. As the *Boreis* are new and the *Delta VIs* were recently refurbished, the number of non-deployed missiles is likely to be minimal (possibly less than 20). Assuming that the stated IOC dates are reasonably accurate, there is still a wide range of possible missile production rates and combinations of missile types and launchers. This force reflects one option.

While there are significant uncertainties unresolved with respect to the force structure mix and numbers, none lead to a New START compliant force unless Russia cannot achieve stated life extension and modernization goals. Key uncertainties are:

- Will Russia build 400 new IC/SLBMs by 2022 as stated by President Putin?
 - Will the approximately 50 Sarmat be counted in that figure, or is that only Votkinsk production? (Votkinsk produced 38-41 IC/SL in 2014, and more than 50 in 2015; at those rates, it could potentially produce approximately 490 IC/SLBMs by 2022.)
- What are the WH loadings? Russia has significant upload capacity.
 - Will Russia move to larger numbers of lower yield WHs—for example, sub-kilotons?
- Will all IC/SLBM RVs be nuclear, or will Russia deploy its own conventional prompt global strike system? Developing or deploying a prompt global strike system is one rationale for additional booster production.
 - Russia has stated that conventional WHs will be available on the Sarmat, “New medium” (possibly designated RS-26) and the Sineva and Bulava SLBMs. Unless they are BGVs, they will be treaty countable.
- How many of the IC/SLBM WHs will be BGVs and not counted under the New START? If

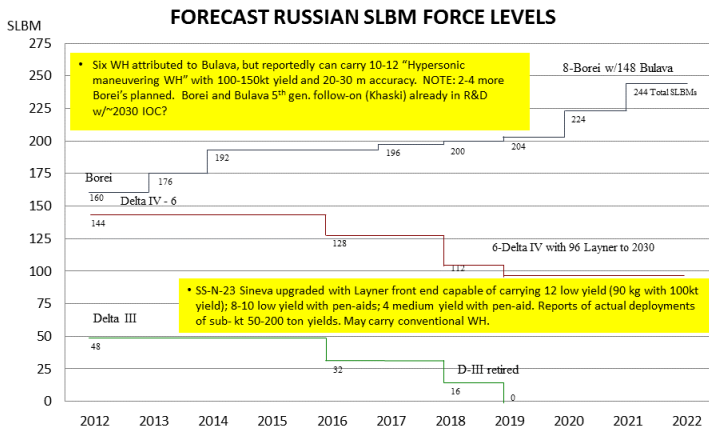
so, which boosters will be used for BGVs? Are boosters countable?

- How many RS-24 ICBMs will Russia actually deploy, and allocate among road, rail, and silo?
- Will RS-24, currently with 4 RVs, be uploaded to 6-10?
- What will be the allocation for production between RS-24 and RS-26 (intermediate range ballistic missile [IRBM])?
- Will the SS-19 be retired in 2019, or will the 30 “like new” SS-19s returned from Ukraine stay in service until the mid-to-late 2020s?
- Will SS-X-31 be produced? If so, how many? With what capabilities?
- Will the Sarmat be deployed as planned and replace the SS-18 on a one-to-one basis—or delayed?
- What is the intended use of the RS-26 Rubezh—ICBM or IRBM?
- Will the 78 SS-27 be MIRVed with 4-7 WHs? Recent reports indicate they are.
- Will Russia build more than 10 ballistic missile nuclear-powered (SSBNs) *Borei* submarines?
- Will the *Delta IV* SSBNs with 384-960 WHs remain in service until about 2030, or be retired early and lose investment in the extensive and expensive SSBN modernization and the upgrading of the Sineva SLBMs with the Layner front end?
- Will Russia build 50 Tu-160M2 Blackjacks in addition to stealth bomber PAK DA?
- Will Russia modify and deploy passenger and transport aircraft to carry either or both IC/SLBMs or air-launched cruise missiles (ALCMs)?

- What are the roles, capabilities, survivability, and numbers of new long-range (2,500-5,000-plus kilometers) cruise missiles—land, air, or sea? In this context, Russian long-range cruise missile developments are a key capability to monitor.

Russia's current and future SSBN/SLBM force is illustrated in figure 10-2. The *Delta III* SSBN is expected to be retired by 2019, although the K-44 Ryazan was just modernized in 2016, which raises questions about actual retirement dates.⁵¹ The *Delta IV* SSBNs have been refurbished, and will remain in service until approximately 2030.⁵² Their SS-N-23 Sineva missiles are expected to be upgraded with Layner front ends capable of carrying 12 low-yield WHs (90-kilogram with a 100-kiloton yield), 8-10 low-yield WHs with penetration aids, or 4 medium-yield WHs with penetration aids. There are reports of actual deployments of sub-kiloton, 50 to 200-ton yield on the SS-N-23s.⁵³ The SS-N-23s may also carry conventional WHs; also, there are reports of hypersonic-type WHs deployed. The *Borei* SSBN force will consist of 8 SSBNs to be built by 2020, although there are reports that 10, 12, or even 14 *Boreis* may be built.⁵⁴ Russia states it has a minimum need of 12 SSBNs, and according to the Russian Navy's former Commander in Chief, Admiral Viktor Chirkov, "Our shipbuilding program . . . does not envisage a stop to the construction of *Borei*-class submarines after 2020."⁵⁵ Project 955 (first 3 *Boreis*) carries 16 Bulava SLBMs. Project 955A (next 5 *Boreis*) also carries 16 SS-N-32 Bulava SLBMs. Six WHs are attributed to the Bulava, but reportedly they can carry up to 10-12 "hypersonic maneuvering WH[s]" with a 100 to 150-kiloton yield and 20-30 meter accuracy.⁵⁶ However, with a 1,150-kilogram payload (50 percent

PBV and 50 percent RVs), 6 90-kilogram RVs (540 kilogram) with a 100-kiloton WH are more feasible. However, according to leaked designs, the PBV is combined with a liquid third stage, which means the PBV is not included in Bulava throw-weight (TW) so almost all of the 1,150-kilogram TW can be used for WHs (12 × 90 kilograms = 1,080 kilograms). Reports indicate the *Borei* may also carry Kaliber Russian land attack cruise missiles (LACMs), and each *Borei* could carry up to six long-range LACMs plus torpedos.⁵⁷



Two more Borei w/ 20 Bulava each planned by 2022 for total of 284 SLBMs w/~ 1464-2632 WH

Figure 10-2. Forecast Russian SLBM Force Levels

While not a strategic system, the long-range (LR) LACMs Russia has developed and deployed on SSN/SSGN (nuclear attack/nuclear cruise missile) submarines have both nuclear and non-nuclear strategic attack potential and could reinforce the core SNF. In any consideration of Russian strategic, non-strategic, and non-nuclear forces, these highly capable SSN/SSGN submarine forces with LR LACMs need to be

taken into account. Table 10-2 lists the planned 2022 Russian SSN/SSGN submarine force. If half of the submarine weapon loadings are allocated to LR LACMs, then the force could carry approximately 1,500 weapons, which could be mission-loaded with either nuclear or non-nuclear WHs.

	2022 Subs		LACM/sub		Total
<i>Oscar</i> SSGN – New Universal Launcher	8	x	14+36	=	400
<i>Sierra</i> SSN	4	x	20	=	80
<i>Akula</i> SSN	9	x	20	=	180
<i>Typhoon</i> SSGN?	3?	x	140	=	420?
<i>Yasen</i> – by 2022 Total number planned 30+	10	x	20+20	=	400
Total LR-LACMs:					1,480

Notes:

- (1) Assumed 50 percent loading LR LACMs—the rest for other SSN/SSGN missions. Loading can vary by scenario.
- (2) *Oscar* SSGNs refitted with universal launcher with 3 Launch tubes—carry up to 72 missiles plus 28 for torpedo tubes.⁵⁸
- (3) *Typhoons* being converted to SSGNs with seven missiles per launcher.
- (4) Reports *Borei* SSBNs may also carry LR LACMs—up to 48-60 LACM force total.
- (5) Diesel *Kilo/Lada/Amur* (36 subs) not counted—provide theater threat with LR- LACMs.
- (6) Defense Minister Sergei Shoigu, “We will increase number of cruise missiles by 30 times by end of decade.” (But, what is the current base? Is it for example $1000 \times 30 = 30,000$?)⁵⁹

Table 10-2. Russian SSN/SSGN Potential LR LACM Force Level

Russian LR LACMs can cover all of Eurasia, providing limited conventional precision strike capability in support of Russian national interests. The postulated SSN/SSGN force loading of 1,500 LR LACMs is sufficient for a credible threat and for the ability to conduct attacks against key military targets and critical infrastructure, but the numbers are insufficient for conducting a non-nuclear military campaign. Russian rapid developments in air-launched, sea-launched, or submarine-launched LR LACMs provide new options for attacks against U.S. allies, the continental United States, and the U.S. global base infrastructure. What will be the nuclear and conventional scenario mix options?

The Russian bomber force is also being rapidly modernized. Currently there are 27 Tu-95 Bear H-6s, 28 Tu-95 Bear H-16s, and 16 Tu-160 Blackjack bombers, for a total of 71 bombers. All bombers can carry Kh-101 (conventional) and Kh-102 (nuclear) ALCMs with a 3,000–5,000-kilometer range (with 3-5 meter accuracy), as well as a variety of other ordnance, and can be reloaded. The Tu-95 Bears are being modernized and will stay in service until about 2040. There are also 60 Tu-95s in storage.⁶⁰

Tu-160 Blackjacks are being modernized to the Tu-160M2 configuration, and will be essentially new aircraft, as only the original frame will remain.⁶¹ In addition, President Putin and Defense Minister Shoigu authorized the production of “at least” another 50 Tu-160M2 bombers, with an IOC in approximately 2021.⁶² Production of the Tu-160M2 may delay production of the PAK DA (50 bombers × 12 WHs = 600 WHs). The new stealth bomber (PAK DA) is expected to have a subsonic, stealthy flying wing design, and to have a first flight in 2019 with an IOC sometime during

2023-2025. Characteristics, capabilities, and production numbers are unknown.⁶³ The Tu-22M3 Backfire is not accountable under any treaty. There are 150 in service (93 Air Force and 58 Navy) and approximately 90 in storage, plus 30-60 to be modernized to Tu-22M3M standard. The Backfire can carry four Kh-101/102 (3,000-5,000 kilometers) or six to eight Kh-SD. It has screw-in refueling probes, which are stored at their bases, and has in-flight refueling, which provides the Backfire global reach.⁶⁴

Transport aircraft can be modified to carry LRCMs, nuclear or non-nuclear. This is speculative, but studies by major aerospace firms have proven the concept is feasible. Cargo transports with a rear ramp can carry one or two IC/SLBMs with 10 RVs each, for a total of 10-20 RVs, and are counted as one strategic nuclear delivery vehicle (SNDV) under New START. The concept has been flight-tested.⁶⁵ Transport passenger or cargo aircraft can be rapidly modified within several months to carry 20-40 plus LR (3,000-5,000 kilometers) ALCMs. Based on industry studies, many launcher configurations are feasible, ranging from designing bomb bay modifications to passenger aircraft, to inserting simple cruise missile launchers and appropriate BM/C3 consoles into a transport aircraft. Studies estimate a force of 50-60 cruise missile carrier (CMC) aircraft could be developed in less than 5 years, with a potential loading of 1,000-2,400 ALCMs.⁶⁶

It should also be noted that cruise missiles can be equipped with multiple WHs, and this capability has been demonstrated.⁶⁷ By 2022, Russia could have the SNDV and WH force levels illustrated in table 10-3. While Russian SNDV force levels may not exceed New START levels, by 2015, the WH levels exceeded New START levels.

	<u>2015</u>		<u>2022 (Full upload)</u>		<u>2022 (START)</u>	
	SNDV	WH	SNDV	WH	SNDV	WH
ICBM	299	1,082	366	2,670	336	1,386
SLBM	192	512	244	2,440	244	1,464
Bomber	71	802	75	850	75	75
Grand Total	562	2,396	685	5,960	655	2,925

Table 10-3. Russian SNF Grand Totals: SNDVs and Warheads

Given stated modernization and new production goals, Russia will exceed New START WH limitations unless WH attribution is adjusted to very low levels (for example, two to three per SNDV) or WHs in excess of New START WH limits are BGVs, which would be unlikely as they are too costly. Russia will likely have a mix of high (1-4 WHs), medium (4-7 WHs), and low-yield nuclear WHs (7-10 or 12), integrated with cyber, space, defense, and non-nuclear forces capable of evading U.S. defenses and covering all strategic policy, strategy, and targeting options. Given the capabilities of cyberweapons to destroy military and critical infrastructure targets, cyberweapons will play a major role, but what will their cyber and kinetic missile mix be?

Russia will be developing four new ICBMs, two new SLBMs, and two new bombers in less than 10 years and engaging in aggressive life extensions. The question is: Why? How might extra WHs be used? The following options are discussed: 1) equip many or most of the strategic nuclear force missiles with accurate,

low-yield “clean” nuclear weapons; 2) develop a global reconnaissance and strike system to enable intercontinental conventional war; 3) enhance SNF capabilities to suppress any adversary’s missile defenses; and, 4) enhance SNF capabilities as a counter to a buildup by China of its nuclear forces, and any conventional threat to Siberia and the Russian Far East.

EQUIP MOST OF THE NUCLEAR FORCE WITH ACCURATE, LOW-YIELD “CLEAN” NUCLEAR WARHEADS (WHs)

Russia can (and likely will) equip many of their strategic missiles with low-yield, clean, accurate WHs to keep force applied consistent with conflict objectives and achieve goals of “making the threat realistic,” “mak[ing] nuclear weapons an instrument of policy,” and “provid[ing] useable military force.”⁶⁸ The capabilities of a low-yield, clean, accurate force are illustrated in figure 10-3. Low-yield nuclear weapons with 10-30 TNT equivalent tons can kill most targets of interest, given a 3-5 meter circular error probable (CEP) (GLONASS-K has approximately a 0.6 meter accuracy), and 500 tons (3 meter CEP), or 1 kiloton (10 meter CEP) can kill a hard (about 5,000 pounds per square inch [psi]) target (for example, a hard ICBM silo). Consequently, precision, low-yield WHs have a significant military and political utility; more WHs are required, but fewer fatalities (less than 0.01 percent) and far less collateral damage occur as a result.⁶⁹ Nuclear weapons have once again become an instrument of policy—specifically, for: 1) political utility for deterrence and coercion and 2) military utility for warfighting.

Highly-Accurate, Low-Yield, “Clean” Warheads Can Revolutionize Doctrine/Strategy/Force Structures – and this is what it means

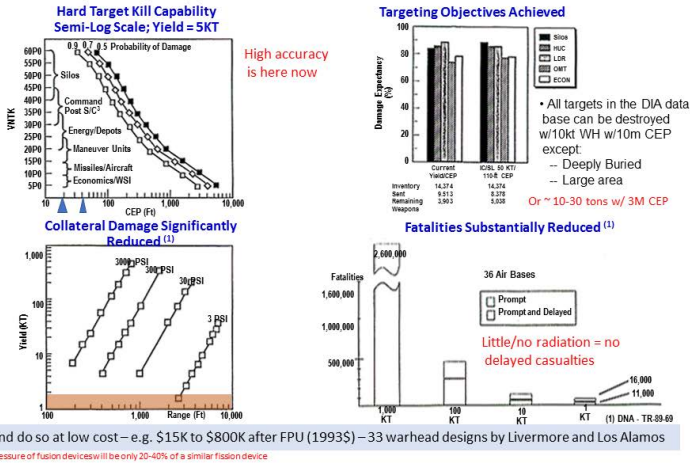


Figure 10-3. Highly Accurate, Low-yield, Clean Nuclear Warheads Can Revolutionize Doctrine, Strategy, and Force Structure—and This Is What It Means

DEVELOP A GLOBAL RECONNAISSANCE STRIKE SYSTEM TO ENABLE THE CONDUCT OF GLOBAL PRECISION STRIKE AND INTERCONTINENTAL CONVENTIONAL WAR

Russia could use “excess warheads” for global conventional applications. Russia has expressed great concern over the U.S. PGSS capabilities, and is now starting to follow the U.S. blueprint, but could produce a much larger missile force than the United States. According to former Deputy Defense Minister Yuri Borisov, “Russia is capable of and will have to develop a similar [PGS] system.”⁷⁰ Russia is developing a global reconnaissance and strike system that will provide the initial capability to conduct “non-contact” war, as advocated by Major-General Vladimir Slipchenko and

General Gerasimov, among others, and which could include intercontinental conventional war as one of its “forms and methods.” At least two influential Russian thinkers integrated strategy, future war, and geopolitics together and were advocating a direct threat to the U.S. homeland with non-nuclear deterrents.⁷¹ Russian military thinkers have been discussing a “new type [of] war,” and future intercontinental conventional war fits into that construct.

Geographic and conflict asymmetries, together with technology developments, could lead to a new form of warfare (intercontinental conventional war-[ICW]) between Russia and peer or near-peer adversaries continuing the historic process of technology developments leading to new and additional forms of warfare. ICW provides usable military power; provides new options (deterrent and attack) for Russia; significantly complicates U.S. policy, operations, and defenses; and limits U.S. options. There will be significant synergy with advanced nuclear forces that could reinforce the non-nuclear forces and control escalation. Given geographic asymmetries, it is Russia’s only option to threaten or attack the United States credibly, as well as the most cost effective, and indicators confirm that this form of warfare is emerging. Asymmetries in conflict objectives favoring Russia also suggest that developing intercontinental conventional war capabilities is Russia’s most cost-effective option to deter the United States – and if they fail to deter, to conduct a war with limited objectives to achieve Russia’s national interests.

LR missiles and information operations will become the primary way for Russia to attack, threaten, or deter the United States and limit U.S. freedom of action, while achieving the following: 1) striking a limited target set (primarily critical infrastructure) and

selected defenses, prompting an intercontinental strike; 2) reinforcing anti-access strategies, and changing U.S. options and its strategic calculus; 3) implementing U.S. counter anti-access/area denial (A2/AD), thereby accelerating the trend toward ICW; and, 4) achieving advances in warfare, which will accelerate ICW, which may then become the dominant instrument used.

Intercontinental conventional war will fundamentally change the concept of victory, from the occupation of territory to destroying critical nodes of the opponent's economy in order to either influence or coerce its enemy to achieve conflict objectives. The opponents' armed forces are no longer the primary target—countries can now “leap over” the defending armies to achieve strategic objectives directly by attacking the critical infrastructure of the opponent to achieve limited major conflict objectives. The survival of a country would not be at risk, and combatants can likely stay under the nuclear threshold, as conflict objectives govern the type and amount of force used. Countries will not launch a nuclear attack in retaliation of a conventional attack, especially when the attacking country also has nuclear forces.

This transformation in warfare will be led by growth in conventional long-range ballistic and cruise missiles along with cyberwarfare, leading to different requirements for space control; early warning/attack assessment (EW/AA); defenses; and battle management/command, control, communications, computers, intelligence, surveillance, and reconnaissance (BM/C3ISR). Historic non-military instruments will become increasingly effective. Force mix may lead to a decline in current conventional forces for countries adopting long-range strike capabilities.

Intercontinental conventional warfare systems are technologically feasible now, and future developments in propulsion, WHs, and materials could radically improve cost effectiveness. Synergy among key technologies will enable intercontinental warfare, with developments primarily in energetic propulsion and WH technologies. Highly accurate and low cost guidance has been the key enabler. Developments in materials and manufacturing processes can significantly reduce development and production time and costs (up to 40 percent).

Targeting shifts from mass destruction to effects based. It currently costs the United States \$100-\$500 per pound to deliver explosive power (rough order of magnitude [ROM] cost, based on total cost of war/tonnage of bombs delivered), and pennies for cyberpower. Russian intercontinental conventional missile forces will become cost competitive. For example, the SS-18 class ICBM is approximately \$200-\$700 per pound; LR LACMs are less than \$100-200 per pound.⁷²

Existing missiles can use existing conventional WHs. Examples include: advanced conventional; fuel/air explosive (FAE); hypersonic kinetic; conventional EMP; and, in the future, highly energetic WHs. This is the most cost-effective non-nuclear way to deter the United States and control the conflict by keeping the force applied consistent with conflict objectives. With the accuracy provided by GPS/GLONASS (GLONASS-K provides about 0.6 meters CEP), any target can be destroyed by a conventional WH, even hard silos. For example, a 700- to 900-pound penetrator delivered by an IC/SLBM traveling at 3 to 4 kilometers per second in the terminal phase can penetrate and destroy any ICBM silo. However, deeply buried targets (more than 30-40 meters) are still invulnerable to

kinetic non-nuclear weapons, until highly energetic weapons with explosive power greater than about 100 times TNT are deployed. Kinetic energy projectiles come in many types (pellets, cubes, rods, and penetrators), sizes (millimeters to meters), and weights (grams to 30,000-pound penetrators), enabling them to attack a wide variety of targets—from ships, aircraft, and tanks, to ICBM silos and industrial facilities. Even area targets can now be attacked by cost-effective conventional weapons. For example, 5,000 pounds of 10-gram pellets could destroy a weapons plant that was a one-quarter square mile. The addition of a pyrophoric coating on the kinetic projectile to cause fires can increase the lethality as well as the lethal radius.

Russia has developed an FAE with the explosive power of 10-15 times TNT. One version is the 7,000-kilogram “Father of all Bombs,” with a blast radius of 1000 feet, approximating a 1-kiloton weapon in effectiveness (but a 1-kiloton weapon weighs less than 100 pounds).⁷³ Advanced conventional munitions can also be employed to kill or negate many targets. For example, a missile with a 5,000-pound WH of combined effects munitions could cover an area of 450 by 600 feet.

Explosively driven non-nuclear EMP in an approximately 2,000-pound class bomb can kill all electronics and destroy circuits up to 400-500 meters. Repeated pulsed EMP WHs in a cruise missile can attack many targets, or repeatedly attack one or a few targets.

There is global research into highly energetic WHs that have the power of 10-1000 × TNT. At 30-40 × TNT, a 1,000-pound WH would have the ability to destroy most targets of interest, including hard and deeply buried targets if a penetrator is used. A 1,000-pound bomb with explosive power 120 × TNT would have a

750-foot (ft.) lethal radius, and a 250-pound bomb with a WH 1000 × TNT would cover 4 square kilometers with lethal effects.⁷⁴ Nanoenergetic materials would have more than 100 × TNT explosive power, which means a 100-kilogram WH would have the TNT equivalent of a 10,000-pound bomb, which could destroy most targets of interest and make Bulava (with possibly 10-12 WHs) and RS-24 (with possibly 7 WHs) highly effective systems. Energetic WHs remain a promise, but they will come.

President Putin, in a November 29, 2013, statement issued to a Kremlin gathering on “long-range high-precision weapons,” stated, “High precision weapons are becoming increasingly important factor[s] in non-nuclear deterrence . . . [can] become decisive in a global conflict . . . and are an alternative to nuclear weapons in their deterrent capacity.”⁷⁵ In September 2014, he stated, “non-nuclear use of strategic weapons is being explored . . . and Russia would receive hypersonic weapons.”⁷⁶

Russian IC/SLBM forces can cost-effectively deliver conventional WHs. According to Karakayev:

A liquid fueled rocket with its greater payload potential allows Russia to realize such opportunities as the creation of high precision strategic weapons with non-nuclear warheads and a practically global range.⁷⁷

If Russia completes planned IC/SLBM production and life extensions, and fully uploads, it will have about 1,300-3,560 IC/SLBM WHs in excess of New START limits it could use for conventional warfare applications. It is important to note that BGVs are not accountable under New START, so any BGVs that Russia deployed would not count against New START limits. It should also be noted that BGVs are far more

expensive than ballistic RVs due to the flight controls and guidance required. For example, the ballistic RV (minus the WH) for a Poseidon SLBM costs about US\$11,000 in the 1990s. A BGV today would likely approach US\$1 million.

Russia's 2022 heavy bomber force (71 current bombers plus 3 new Tu-160M3s) can deliver approximately 850 weapons in one strike, and has re-load capability to conduct a campaign. Use of the Tu-22M3 Backfire force of 150 bombers (plus 90 in storage) could add substantially more WHs. The Kh-101 and Kh-555 has a 3,000–5,000-kilometer range, a 400-kilogram WH and 3-5 meter accuracy, significantly increasing bomber survivability with standoff launch. As noted earlier, while they are not strategic systems, the Russian SSN/SSGN submarine force can add another non-nuclear LACM (about 1,500 long-range at approximately 2,500-5,500 kilometers) providing new attack options against the continental United States and the U.S. global base infrastructure. This is one mission area in which Russia could use "excess" WHs for global conventional warfare applications.

Russia has all of the elements of a global reconnaissance and strike systems-of-systems as illustrated in figure 10-4. The key issues are the capability of each system, and more importantly, how well they are integrated in order to conduct net-centric warfare.

Future Russian Reconnaissance/ Strike Regime
Russia has all the elements—and most modernized by 2022—But integrated?

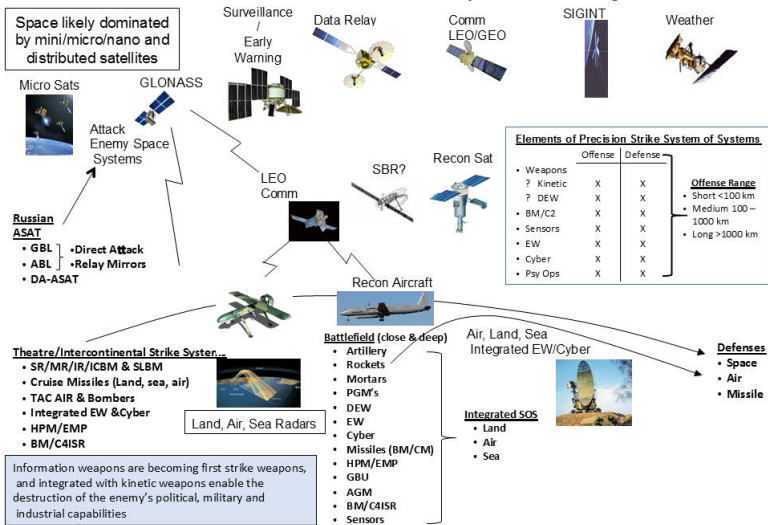


Figure 10-4. Future Russian Global Reconnaissance and Strike System-of-Systems

In intercontinental conventional war, the focus of targeting shifts from the mass destruction of large military or economic target sets to focused node destruction—the attacker can now “leap over defending armies” to achieve conflict objectives directly, unless effective defenses are in place. The number of critical infrastructure targets needed to attack to achieve a wide range of conflict objectives short of placing the survival of the state at risk is comparatively small (see figure 10-5). For example, if we look at selected power projection targets in the United States, there are 5 bomber bases, 2 airborne warning and control systems (AWACs) bases, and about 100 tank or armored fighting vehicle motor pools. However, they would be empty, except for surprise attack scenarios. For U.S.

critical infrastructure, 40 refineries produce approximately 60 percent of U.S. petroleum, oil, and lubricants (POL); 500 power plants produce approximately 80 percent of U.S. power, and the electric grid system is regulated by 11 power grid controllers; and all Class 1 railroad traffic is regulated by 7 computer centers. Note in figure 10-5 the potential role of cyberattacks, which could be the primary means of attack, would degrade or destroy many of the targets, and would be employed synergistically with kinetic attacks.

**Focus of Targeting Shifts From Mass Destruction of Large Military/Economic Target Sets,
to Focused Node Destruction – “Leap over Defending Armies”**
Potential Targets in US for a Limited Objective Strategic Conventional Conflict – Suitable WH exist for all targets

- Power Projection – Success requires surprise
 - Air/Sea POEs - **Cyber**
 - Bomber Bases (~5)
 - Selected Fighter/Tanker Bases
 - AWACS Base (~2)
 - Key Headquarters - **Cyber**
 - Tank/AFV Motor Pools (~100)
 - Satellite Ground Stations - **Cyber**
 - Selected BM/C2 & Headquarters - **Cyber**
 - Naval Bases and Maritime Reserve Fleets (~12/3)
 - Space Control Sites - **Cyber**
- Selected Economic Nodes: Effects- Economic Shock thru Decisive Impact. ⁽¹⁾ **May be dominated by cyber**
 - Alaskan Oil (Pipeline, Pumping Stations, Point of Origin, Tanker Loading)
 - Mississippi River Bridges/Locks (56 rail & ~ 6-8 interstate hwy bridges; 27 locks)
 - Financial, e.g. Federal Reserve Banks, check clearing houses, stock exchanges
 - Oil Refineries: ~180 total, w/~40 refineries produce >60% of POL
 - Ports: 10 Ports account for ~70% of US sea cargo trade, plus 5 more ports for ~70% petroleum trade
 - Pipeline Nodes
 - Selected Power Generation; (~500 Plants Produce >80% of US Capacity). Power Grid Controllers - 11
 - Key Rail Switching Yards (all Class I rail traffic controlled by 7 regional computer centers)
- Major Urban/Industrial Areas, e.g. Los Angeles – 20M+ People – **Dominated by cyber**
 - Water (3 Aqueeducts)
 - Power (~12)
 - Sewage (~4)
 - Transportation Nodes Include Train & Bus Parks, Highway Interchanges, etc.

• Target types/numbers selected to achieve conflict objectives
• Number of key critical infrastructure targets needed to attack far smaller than military target sets

Center of Gravity is the US Critical Infrastructure, selected Power Projection Forces and Supporting Space Assets

(1) Russians and Chinese have discussed limited strikes to paralyze a country and quickly end war
(2) Surprise attack would be required to destroy selected military forces before dispersal. Effective defenses change attack plans.

Figure 10-5. Focus of Targeting Shifts from Mass Destruction of Large Military/Economic Target Sets to Focused Node Destruction—“Leap over Defending Armies”

Russia has expressed great concern over the prospective employment by the United States of precision conventional weapons against their strategic nuclear

forces, leadership, and command and control in a surprise attack, and has conducted studies to determine the capabilities of U.S. precision strike cruise missiles against their strategic nuclear forces.⁷⁸ For every strategic nuclear force target, there is an appropriate precision conventional WH that could be used (see figure 10-6).

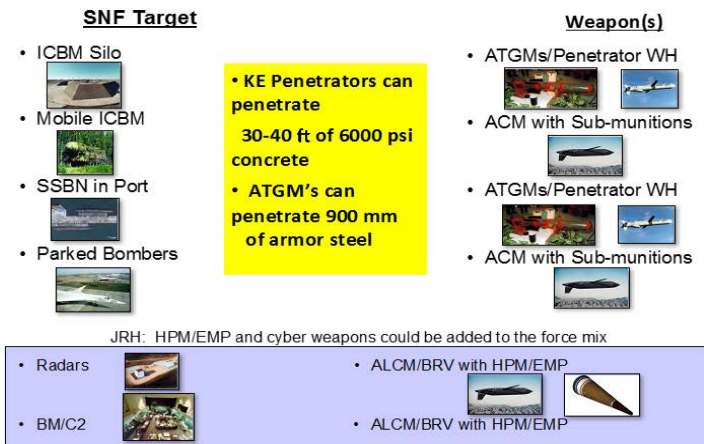


Figure 10-6. Russia has Studied the Counterforce Potential of Precision Conventional Weapons and has Great Concerns⁷⁹

A Russian global reconnaissance and strike system could place at risk all of the key nodes of the U.S. global base infrastructure. The Russian SSN/SSGN force in particular can play a major role in surprise attack scenarios, and has the potential to degrade U.S. capabilities severely in a wide variety of scenarios. Russia's rapidly growing force of high throw-weight IC/SLBMs will enable Russia to deliver large numbers of non-nuclear weapons cost effectively, and with precision.

The U.S. has over 800 bases in more than 70 countries, some of which also contain key intelligence and space support facilities. The Russian SNF and global precision strike capabilities place at risk key elements of the U.S. global base infrastructure.

Russia is also interested in developing a global base infrastructure, with reports of talks with Algeria, Cyprus, Nicaragua, Cuba, Bolivia, Seychelles, and Singapore to extend the reach of Russia's air and naval forces and thereby increase Russia's peacetime global influence. None of the countries is a regional power, and during wartime, any Russian presence could be negated rapidly by the United States or its allies.

ENHANCE CAPABILITIES TO SUPPRESS ADVERSARIES' MISSILE DEFENSE SYSTEM

Numerous Russian officials have stated concerns about the potential of the U.S. global missile defense system, and the risk it poses for Russian strategic nuclear forces. One of the options is to increase the number of WHs to overwhelm the defense (original mission of MIRVs)—but this is not very cost effective. There is a wide variety of penetration aids available to enable forces to penetrate defenses, and Russian missiles have the throw-weight to carry and deploy many types and numbers of penetrations aids.⁸⁰ Russia is also developing “hypersonic maneuvering weapons” to defeat defenses.⁸¹ It is not publicly known if these are boost-glide vehicles or maneuvering re-entry vehicles (MaRVs/KY-9). However, BGVs under-fly existing mid-course defenses and over-fly other defenses, and the BGV and MaRV speed and capability to maneuver defeats terminal defenses, thereby making existing missile defenses obsolete. The primary

missions of BGVs are defense suppression and attacking critical time-urgent targets prior to defenses being suppressed—the ballistic RVs can then execute the majority of the attack.⁸²

However, Russia fears that future U.S. missile defenses could undermine Russia's strategic deterrent and create a new stage in the arms race, one that Russia may not have the technology or resources to compete in over the long term.⁸³ The S-500 reportedly can intercept IC/SLBMs, to include maneuvering WHs, providing Russia with a preliminary national missile defense. This advantage may be transitory if the United States gets serious about developing and deploying effective missile defenses. Russia has long feared U.S. ability to develop rapidly and field advanced technologies that make Russian systems obsolete.

RUSSIA MAY ALSO BE HEDGING ON FEARS OF A CHINA STRATEGIC NUCLEAR FORCE BUILD-UP

Current “expert” consensus is that China has approximately 240-260 nuclear weapons. However, some Russian experts estimate that China has about 1,800 to more than 3,000 WHs, and will have more by about 2020. China currently has sufficient fissile fuel for up to 3,000 low-yield (about 20 kilotons) WHs based on acknowledged fissile fuel stockpile data. China's SNF build-up is inconsistent with a low number of WHs. Also, reports indicate that China is MIRVing the DF-5 and deploying the 10 RV DF-41, and also MIRVing the DF-31/31A ICBMs and JL-2 SLBM (deployed on four *Jin*-class SSBNs), which would rapidly increase the number nuclear WHs.⁸⁴ In addition to the deployment of IC/SLBMs, China has built a highly sophisticated tunnel system, 5,000 kilometers

long, capable of housing both road-mobile and rail-based systems—this required a massive investment of resources to protect only 240-260 WHs.⁸⁵ Given the inherent survivability of China's mobile systems, it could be argued that the primary reason was to keep China's ICBM force levels secret.

Russia will likely allocate forces for: 1) nuclear (both major nuclear war and precision, low-yield, strategic nuclear war); 2) global conventional strike; 3) the suppression of U.S. defenses; and, 4) to either deter or coerce China, or both. However, the bulk of WHs will likely go to the intercontinental conventional war mission, as it provides military force that is more usable in more scenarios, and is the most cost-effective way to deter U.S. actions in Russia's area of interest. Without U.S. support, U.S. allies will likely accede to Russian interests.

Russia has the capability to produce the planned 2022 SNF, the missile defenses, and the BM/C3. Through 2020, R77B will be spent on the creation of a series of ICBM manufacturing processes, with R15B on facilities modernization alone—half of this will go to Krasnoyarsk, which can produce approximately 30 SLBMs per year, and is being readied for the serial production of the new large liquid Sarmat that will replace the SS-18.⁸⁶ The Khrunichev State Research and Production Space Center currently produces the Angara and Proton space launch vehicles. It can likely produce 10 to 30 missiles per year and reportedly will produce a new medium liquid ICBM (SS-X-31? / SS-19 replacement?).⁸⁷ The Votkinsk production facility has received a \$500 million modernization allocation from the State Armament Program budget, and can now produce 40-50 IC/SLBMs per year. Votkinsk produced about 30 IC/SLBMs in 2013, about 40 in 2014, and about 50 in

2015.⁸⁸ During the Cold War, Votkinsk produced over 100 ICBMs per year.

After a slow start, Russia is now rapidly producing *Borei* SSBNs and the new advanced line *Borei* 955A SSBN is currently under construction.⁸⁹ The *Borei* 955A SSBNs carry 16 Bulava SLBMs.⁹⁰ The Russian submarine construction industry appears to be in good condition as the production of 4 *Boreis* reportedly is on schedule, 2 *Yasen* SSNs are also currently under construction (2016), and up to 30 *Yasen* SSNs may be produced. The deployment rates of the Bulava, Layner, and RS-24; the flight-testing of two new ICBMs (Sarmat and RS-26); and the possible production of SS-X-31 (SS-19 class) liquid ICBM indicate most of the past missile production problems have been solved.

Reduced investments in the R&D sector in the last 15-20 years will have an impact on technology levels that can be achieved, but for the current production and planned systems, there is no technology limitation, except potentially for boost-glide and hypersonic cruise missiles (BGV/HCV). In fact, Russia may have made a breakthrough in missile propellant and nanomaterials.⁹¹ Reportedly, the Sarmat has approximately the same performance as the SS-18, yet is approximately one-half the weight of the SS-18.⁹² There are also reports that the RS-26 has a new energetic propellant, and that nanomaterials were used.⁹³

Russia can afford the current SNF modernization. Russia is allocating US\$730 billion for the State Defense Program 2011-2020 to rearm the Russian forces, with 10 percent (approximately US\$70 billion) going to SNF.⁹⁴ This also highlights the fact that nuclear forces are far cheaper than non-nuclear forces, and capabilities can be more rapidly produced. However, oil revenues providing most of the government funding have plummeted. Nevertheless, the defense budget was only

approximately 3.7 percent of gross domestic product (GDP) in 2015, 3.7 percent in 2016 and 3.6 percent in 2017, so there is room to maintain the current funding level – which Russia is doing – or even increase the budget. Given that the SNF modernization has first priority (and is expected to retain first priority) and strategic defense second priority, SNF modernization will continue as planned, and can be afforded, even with low oil prices.

Russia's extensive nuclear weapon design and manufacturing infrastructure, and low cost to implement, support Russia's nuclear force build-up—nuclear WHs are cheap compared to conventional forces. It appears that Russia may be able to achieve the stated SNF modernization goals, given the high priority that SNF has been granted.⁹⁵

In conclusion, several inconvenient truths are presented herein. Supreme Allied Commander Europe General Philip Breedlove (U.S. Air Force, Ret.), NATO Commander, stated on November 2, 2015, "I don't think anyone understands what Putin is about. . . . We watch the capabilities and capacities he builds, and from those capabilities and capacities we can deduce what he might want to do."⁹⁶ If we use General Breedlove's criteria, then:

1. Russia has given its SNF first priority and has deployed nuclear forces that have political or military utility and are the center of Russian strategy. The priority remains to finish SNF and Aerospace Defense Forces modernization by 2022. Russia could then use these forces to:
 - Threaten and coerce the United States, its allies, and other adversaries; Russia's nuclear force numbers and their political or military utility gravely weakens U.S. extended deterrent.

- Deter any potential aggression against Siberia and the Russian Far East (China?) and Russia's Arctic territory and claims (to prevent or prevail in resource wars).
 - Develop a global reconnaissance and strike capability to wage intercontinental conventional war against the United States, its allies, and other adversaries in support of Russian national interests.
 - Provide escalation dominance protection over its conventional forces, deterring enemy escalation of military actions and enabling their forces to achieve conflict objectives at minimum cost.
 - Maintain escalation dominance along the nuclear conflict spectrum.
 - Use Russia's missile throw-weight advantage to maintain a capability to suppress any U.S. missile defense with a combination of penetration aids for ballistic RVs and maneuvering BGVs/MaRVs to defeat defenses.
 - Retain their super power status and place in the world—but the Russian state will continue its slow decline.
2. Russia has a comparative advantage in useable nuclear force capacity and capabilities—it is more cost-effective and quicker to deploy than conventional forces.
 3. It is expected that Russia will maximize their missile build-up time while using the INF and New START arms control treaties to delay/constrain U.S. responses.
 4. By 2022, Russia will have 3 IC/SLBM production plants. Votkinsk is capable of producing 40-50 RS-24/RS-26/Bulavas per year.

Krasnoyarsk built more than 4,000 SLBMs over 30 years (about 133 per year) and is capable of producing 10-30 Sarmats per year. Khrunichev produces Proton and Angara SLVs; built about 60-90 SS-19s per year; and would be capable of producing 10-30 SS-31s per year, for a total of approximately 60-110 IC/SLBMs per year. Assuming that all of the initial production goes to deployments and those missiles needed for development test and evaluation, Russia will continue missile production for several years to stockpile required missiles for operational testing. But given that Russia has a comparative missile cost and capability advantage in IC/SLBM production and operations, Russia's build-up may continue—but what mix of nuclear and non-nuclear is their goal?

The combination of a declining state creating need and strategic/theater nuclear superiority providing means, together with effective air/missile defenses and extensive civil defenses that reduce vulnerabilities, when combined with psychological preparation of the population, means Russia will be willing to accept far more escalation risk than the United States or NATO, leading to more assertive actions in the use of strategic and non-strategic nuclear forces. Russian SNF actions indicate capabilities and intentions we do not understand, and according to a senior State Department official commenting on Russia's actions, "I'm disturbed . . . [it] doesn't make any sense whatsoever," which largely characterizes current U.S. leadership views.⁹⁷ However, it makes sense to Russia, where it counts.

ENDNOTES - CHAPTER 10

1. Matthew Bodner, "Russian Military Merges Air Force and Space Command," *The Moscow Times*, August 3, 2015.

2. Mary-Louise Hoffman, "Russia Outlines Six-year Aerospace Defense Modernization Plan," ExecutiveGov, May 27, 2014, available from <http://www.executivegov.com/2014/05/Russia-outlines-six-year-aerospace>.

3. "Russia completes creation of air-space defense system," RT News, July 22, 2011, available from <https://www.rt.com/politics/missile-defense-air-space/>.

4. General Anatoly Kornukov (Ret.), Air Forces (VVS) CINC, "Aerospace Defense in Disarray," Interfax, May 17, 2011.

5. "USSR/Commonwealth of Independent States (CIS) Miniature ASAT," Global Security, n.d., available from <https://webcache.googleusercontent.com/search?q=cache:Fh0nhqT2AqIj:https://www.globalsecurity.org/space/world/russia/mini.htm+&cd=1&hl=en&ct=-clnk&gl=us&client=firefox-b-1-ab>; Brian Weeden, "Through a Glass, Darkly: Chinese, American, and Russian Anti-satellite Testing in Space," Washington, DC: Secure World Foundation, March 17, 2014.

6. Bill Gertz, "Russia's Successful Test Flight of Nudol . . . An Anti-satellite Missile," Satnews Daily, December 3, 2015, available from <http://www.satnews.com/story.php?number=802506938>.

7. The A-60/1A2 (IL-76 MD) Airborne Laser, described in DIMMI, "A-60/78T6/1LK222," Military Russia, July 3, 2012, available from <http://militaryRussia.ru/blog/topic-680.html>; and Pavel Podvig, "Russia to resume work on airborne laser ASAT," Russian strategic nuclear forces, November 13, 2012, available from http://russianforces.org/blog/2012/11/russia_to_resume_work_on_airbo.shtml.

8. "Russia: Russia's A-235 'Nudol' Is An American Satellite Killer," Fortuna's Corner, posted June 19, 2017, available from <https://fortunascorner.com/2017/06/27/russia-russias-a-235-nudol-is-an-american-satellite-killer/>.

9. Wikipedia contributors, "S-400 missile system," Wikipedia, The Free Encyclopedia, last updated May 29, 2018, available from https://en.wikipedia.org/w/index.php?title=S-400_missile_system&oldid=843428487.

10. Lieutenant General Viktor Gumenny was quoted as saying "We are expecting the first models of the S-500 air defense systems very soon," in "Russian S-500 Prometheus Ballistic Missile Defense to Be Deployed in 2016," RT News, April 15, 2016, available from <https://www.rt.com/news/339757-s-500-prometheus-air-defense/>; "Russian Counter Missiles Can Knock Down Maneuvering Warheads Expert," Interfax, April 28, 2011.

11. "S-500 in 2016?" Russian Defense Policy, April 18, 2016, available from <https://russiandefpolicy.blog/2016/04/>.

12. "Russia Building a Powerful New Early Warning Radar Network," *Sputnik*, January 13, 2016; "Russia will deploy a new global intelligence radar system," *Transmissions*, December 2, 2012, available from transmissionsmedia.com/russia-will-deploy-a-new-global-intelligence-radar-system/; "Revealed: Russia's Ambitious New ICBM Early Warning System," *Sputnik*, August 19, 2015.

13. Anatoly Zak, "Russian ground control and tracking network," Russian Space Web, last updated February 20, 2018, available from russianspaceweb.com/kik.html.

14. Pavel Felgenhauer, "Putin Signs a National Security Strategy of Defiance and Pushback," *Eurasia Daily Monitor*, Vol. 13, Iss. 4, January 7, 2016.

15. Bruce G. Blair, "We Keep Building Nukes for All the Wrong Reasons," *The Washington Post*, May 25, 2003.

16. Kenneth R. Timmerman, "Inside Russia's Magic Mountain," *WorldNetDaily*, June 6, 2000, available from <http://www.wnd.com/2000/06/4137/>.

17. Georgy Manaev, "Underground Soviet Shelters and the Secret Metro-2," *Russia Beyond*, December 26, 2013, available from https://www.rbth.com/science_and_tech/2013/12/26/underground_soviet_shelters_and_the_secret_metro-2_32967.html.

18. Denis Dyomkin, "Russia calls for cold war civil defense training to be revived," Reuters, October 30, 2015, available from <https://www.reuters.com/article/us-russia-defence-usa/russian-calls-for-cold-war-civil-defense-training-to-be-revived-idUSKCN0SO2D420151030>.

19. Wikipedia contributors, "Russian Armed Forces," Wikipedia, The Free Encyclopedia, last updated May 23, 2018, available from https://en.wikipedia.org/w/index.php?title=Russian_Armed_Forces&oldid=842671171.

20. Leon Aron, "Why Putin Says Russia is Exceptional," *The Wall Street Journal*, May 30, 2014, available from <https://www.wsj.com/articles/why-putin-says-russia-is-exceptional-1401473667>.

21. Pavel Felgenhauer, "Preparing for War Against the US on All Fronts—A Net Assessment of Russia's Defense and Foreign Policy Since the Start of 2014," *Eurasia Daily Monitor*, Vol. 11, Iss. 183, October 16, 2014; Pavel Felgenhauer, "A Global 'Resources War' Begins: 'Hot' on Some Fronts, 'Cold' on Others," *Eurasia Daily Monitor*, Vol. 11, Iss. 179, October 9, 2014; Stephen Blank, "Putin's Asymmetric Strategy: Lessons for the Future," *Defense Dossier*, Iss. 12, September 30, 2014, available from <https://www.afpc.org/publications/e-journals/russia-and-the-west>; Leon Aron, "U.S. sanctions aimed at changing power, Russian envoy says," Reuters, December 8, 2014, available from <https://www.reuters.com/article/us-ukraine-crisis-russia-usa/u-s-sanctions-aimed-at-changing-power-russian-envoy-says-idUSKBN0JM0N20141208>; "Is the Worst Still to Come with Vladimir Putin?" *Eastern Promises*, December 4, 2015; Nolan Petersen, "Putin's Game In Ukraine," originally posted on BlueForceTracker, reposted on cdr salamander, January 29, 2015, available from <http://cdrsalamander.blogspot.com/2015/01/putins-game-in-ukraine.html>; Lauren Goodrich, "A Picture of Russian Patriotism," *STRATFOR- Geopolitical Weekly*, March 22, 2016, available from <https://worldview.stratfor.com/article/picture-russian-patriotism>; James Kitfeld, "How to Manage Putin: Russia's 'Escalation Dominance'," *Breaking Defense*, February 5, 2015, available from <https://breakingdefense.com/2015/02/how-to-manage-putin-russias-escalation-dominance/>; Wikipedia contributors, "Valdai speech of Vladimir Putin," Wikipedia, The Free Encyclopedia, last updated May 7, 2018, available from https://en.wikipedia.org/w/index.php?title=Valdai_speech_of_Vladimir_Putin&oldid=840047843.

22. Marcus Weisgerber, "Gates: Come Up With A Syria Strategy, Then Tell Putin 'Stay Out of the Way'," *Defense One*, October 21, 2015, available from <https://www.defenseone.com/threats/2015/10/gates-come-syria-strategy-then-tell-putin-stay-out-way/123018/>.

23. Eugene B. Rumer and Celeste A. Wallander, "Russia: Power in Weakness?" *The Washington Quarterly*, Vol. 27, No. 1, Winter 2003-04; Valery Gerasimov quoted in, "Russia may be drawn into resource wars in future—army chief," RT News, February 14, 2013, available from <https://www.rt.com/politics/military-conflict-gerasimov-threat-196/>.

24. Dmitry Sudakov, "Can Russia Counter USA's Prompt Global Strike?" *Pravda*, September 15, 2014, available from http://www.pravdareport.com/russia/politics/15-09-2014/128535-russia_usa_prompt_global_strike-0/.

25. Associated Press, "Putin says Russia will build new weapons but avoid arms race," *The Daily Star*, January 20, 2015, available from <http://www.dailystar.com.lb/ArticlePrint.aspx?id=284730&mode=print>; "Putin says Russia will not be drawn into new arms race," Reuters, November 11, 2015, available from <https://af.reuters.com/article/worldNews/idAFKCN0T01GC20151111>.

26. "Russia Fears Global U.S. Missile Defenses, Yesin Says," NTI, July 25, 2008, available from <http://nti.org/14612GSN>.

27. "Russia's National Security Strategy approved," *Kremlin.ru*, December 31, 2015, available from <http://en.kremlin.ru/acts/news/51129>.

28. Guy Faulconbridge, "Russia says a fifth of defense budget stolen," Reuters, May 24, 2011, available from <https://af.reuters.com/article/oddlyEnoughNews/idAFTRE74N22120110524>.

29. Pavel Felgenhauer, "Limited Nuclear War? Why Not! Russia's New Defense Concept Could Include Precision Use of Nuclear Weapons," FBIS FTS 19990506000851, *Segodnya* (Moscow, Russia), May 6, 1999.

30. Ibid.

31. Oleg Bukharin, "Downsizing Russia's Nuclear Warhead Production Infrastructure," *The Nonproliferation Review*, Vol. 8, No. 1, Spring 2001; Oleg Bukharin, "A Breakdown of Break-out: U.S. and Russian Warhead Production Capabilities," *Arms Control Today*, Vol. 32, October 2002, available from https://www.armscontrol.org/act/2002_10/bukharinoct02.

32. Vladimir Isachenkov, "Russia Developing New Nuclear, Conventional Weapons, Putin Says," Associated Press, September 10, 2014; "Совещание по вопросу разработки проекта госпрограммы вооружения на 2016–2025 годы" ("Meeting on the development of the draft state armament program for 2016-2025"), Kremlin.ru, September 10, 2014, available from <http://kremlin.ru/events/president/news/46589>.

33. "Document 32: Office of Russian and European Analysis, Central Intelligence Agency (CIA), 'Russia [Deleted],' June 22, 2000," MORI Doc ID: 1260486, in Jeffrey Richelson, ed., *U.S. Intelligence on Russian and Chinese Nuclear Testing Activities, 1990-2000: Prospects of Comprehensive Test Ban Treaty Led China to Accelerate Testing Schedule*, National Security Archive Electronic Briefing Book No. 200, National Security Archive, September 22, 2006, available from <http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB200/index.htm>; "Document 33: Office of Transnational Issues, Central Intelligence Agency. Evidence of Russian Development of New Subkiloton Nuclear Warheads," August 30, 2000, MORI Doc ID: 1260463, in Jeffrey Richelson, ed., *U.S. Intelligence on Russian and Chinese Nuclear Testing Activities, 1990-2000*.

34. "Document 29: Director of Central Intelligence, 'Russia: Mikhaylov Pressing for Hydronuclear Experiments,' 'Security Council Adopts Nuclear Weapons Plans,' and 'Concern About Ability to Test,' Senior Executive Intelligence Brief," May 4, 1999, MORI Doc ID: 1260470, in Jeffrey Richelson, ed., *U.S. Intelligence on Russian and Chinese Nuclear Testing Activities, 1990-2000*.

35. Viktor Mikhaylov quoted in Felgenhauer, "Limited Nuclear War?"

36. "Document 33"; Ibid.

37. "Col-Gen Muravyev, Dep CINC of the RVSN, Interview," *Armeyskiy Sbornik*, December 1, 1999.

38. Ibid.

39. Agence France-Presse, "Russia to Deploy New-Generation Nuclear Weapons System: Putin," *Space Daily*, November 17, 2004, available from <http://www.spacedaily.com/news/icbm-04f.html>.

40. See Representative Bartlett of Maryland, speaking on Nuclear Electromagnetic Pulse, in U.S. Congress, House, *Congressional Record*, 109th Cong., 1st sess., June 9, 2005, pp. H4340-H4345, available from http://www.FAS.org/irp/congress/2005_cr/h060905.html.

41. Major General Vladimir Belous (Ret.), "Characteristics and Missions of Modern Neutron Weapons," *Yadernyy Kontrol*, No. 3, May-June 1999.

42. Viktor Mikhaylov quoted in Felgenhauer, "Limited Nuclear War?"

43. Indo Asian News Service, "Putin Pledges 400 ICBMs for Russia in 10 Years," *RIA Novosti*, February 20, 2012.

44. "Extending the SS-25," Russian Defense Policy, October 29, 2011, available from <https://russiandefpolicy.blog/2011/10/29/extending-the-ss-25/>; "Russia: Retired RVSN Chief of Staff Discusses Future of ICBMs and Responses to US ABM Developments," *Nezavisimaya Gazeta*, September 4, 2013.

45. "Russia: Col-Gen (Ret.) Yesin Assesses Current Status of Russian Strategic Nuclear Forces (Part 1)," *Voyeuno-Promyshlennyy Kuryer*, February 18, 2015.

46. Wikipedia contributors, "RT-2PM2 Topol-M (SS-21Sickle)," Wikipedia, The Free Encyclopedia, last updated April 7, 2018, available from https://en.wikipedia.org/w/index.php?title=RT-2PM2_Topol-M&oldid=835171543.

47. "Long Range Multi-Purpose Capability of New, Fifth Generation Multi-Purpose RS-26 ICBM," *Voyenno-Promyshlennyy Kuryer*, August 6, 2014.

48. "Russia: Retired RVSN Chief of Staff Discusses Future of ICBMs and Responses to US ABM Developments"; Sergey Kazak,

“‘Satan’ Replacement Sarmat Ready for Launch, Flight Trials Next Year,” *RIA Novosti*, November 17, 2015.

49. Bill Gertz, “Russia Doubling Nuclear Warheads,” *The Washington Free Beacon*, April 1, 2016, available from <http://freebeacon.com/national-security/russia-doubling-nuclear-warheads/>.

50. “Russia Reportedly Approves Production of New Liquid-Fueled ICBM,” *Vzglyad*, October 22, 2012.

51. James Bosbotinis, “Russia’s Strategic Nuclear Forces: A Review of Modernisation Plans,” *Defence IQ*, March 22, 2015, available from <https://www.defenceiq.com/defence-technology/articles/russia-s-strategic-nuclear-forces-a-review-of-mode>; “Col-Gen (Ret.) Yesin Assesses Current Status of Russian Strategic Nuclear Forces (Part 2),” *Moscow, Russia, Voyenno-Promyshlennyy Kuveyer*, February 25, 2015.

52. Bosbotinis; “Col-Gen (Ret.) Yesin Assesses Current Status.”

53. Wikipedia contributors, “R-29RMU2 Layner,” Wikipedia, The Free Encyclopedia, last updated April 15, 2018, available from https://en.wikipedia.org/w/index.php?title=R-29RMU2_Layner&oldid=836571688.

54. “SSBN Borei Class Nuclear-Powered Submarines,” *Naval Technology*, n.d., available from <https://www.naval-technology.com/projects/borei-class/>.

55. Franz-Stefan Gady, “How Many Ballistic Missile Submarines Will Russia Build?” *The Diplomat*, July 6, 2015, available from <https://thediplomat.com/2015/07/how-many-ballistic-missile-submarines-will-russia-build/>.

56. Wikipedia contributors, “RSM-56 Bulava,” Wikipedia, The Free Encyclopedia, last updated May 23, 2018, available from https://en.wikipedia.org/w/index.php?title=RSM-56_Bulava&oldid=842633819.

57. Pavel Podvig, “Project 955 submarines to carry long-range cruise missiles,” *Russian strategic nuclear forces*, January 11, 2013,

available from http://russianforces.org/blog/2013/01/project_955_submarines_to_carr.shtml.

58. Wikipedia contributors, "Oscar-class submarine," Wikipedia, The Free Encyclopedia, last updated May 9, 2018, available from https://en.wikipedia.org/w/index.php?title=Oscar-class_submarine&oldid=840310924.

59. "Russia will increase its number of cruise missiles by 30 times by 2020," discussion started by Arzamas 16 in "Military Forum," Defense Pakistan, July 7, 2013, available from <https://defence.pk/pdf/threads/russia-will-increase-its-number-of-cruise-missiles-by-30-times-by-2020.262764/>; Defense Minister Shoigu's statement quoted in Tamir Eshel, "Russian Military Wants More Cruise Missiles," Defense Update, July 6, 2013, available from http://defense-update.com/20130706_Russian_cruise_missiles.html.

60. "Necessary Minimum Readiness for Russia's Strategic Bombers," Ministry of Defence of the Russian Federation, Moscow, Russia, April 6, 2016.

61. Ibid.; "Russia's Modernized Tu-160 Bomber: 'More Lethal Than Ever'," *Sputnik*, May 3, 2016.

62. Kukil Bora, "Russia to Buy at Least 50 Tu-160 Blackjack Bombers, Production Likely To Complete Ahead Of Time," *International Business Times*, May 28, 2015, available from <http://www.ibtimes.com/russia-buy-least-50-tu-160-blackjack-bombers-production-likely-complete-ahead-time-1941450>.

63. Wikipedia contributors, "Tupolev PAK DA," Wikipedia, The Free Encyclopedia, last updated May 8, 2018, available from https://en.wikipedia.org/w/index.php?title=Tupolev_PAK_DA&oldid=840215388.

64. "Russia to Upgrade Tu-22 M3 Long-Range Missile Platform from 2017 Moscow," *Interfax - AVN Online*, July 7, 2014.

65. Wikipedia contributors, "Air-launched ballistic missile," Wikipedia, The Free Encyclopedia, last updated April 14, 2018, available from https://en.wikipedia.org/w/index.php?title=Air-launched_ballistic_missile&oldid=836389558.

66. James R. Howe, "Some Thoughts on Future Intercontinental Conventional War," unpublished research.

67. Ibid.

68. Ibid.

69. "Nuclear Weapon Effects Calculator," Federation of American Scientists, n.d., available from https://fas.org/programs/ssp/nukes/nuclear_weapon_effects/nuclearwpneffectcalc.html.

70. "'Deterrence Not Arms Race': Russia Hints It May Develop Rival to US Prompt Global Strike," *Russia Today*, September 11, 2014.

71. Andrey Ivanov, interviews with Aleksandr Perendzhiyev and Leonid Ivashov, "United States Transitioning to 'Number One' Combat Readiness. Any Provocation Would Give the US the Opportunity to Attack Russia," *Svobodnaya Pressa (Free Press)*, May 7, 2015.

72. Howe, "Some Thoughts on Future Intercontinental Conventional Warfare."

73. Wikipedia contributors, "Father Of All Bombs," Wikipedia, The Free Encyclopedia, last updated May 15, 2018, available from https://en.wikipedia.org/w/index.php?title=Father_of_All_Bombs&oldid=841451608.

74. Howe, "Some Thoughts on Future Intercontinental Conventional Warfare."

75. Diane Barnes, "Putin Eyes 'High Precision' Arms as Partial Nuclear-Weapon Alternative," *Global Security Newswire*, December 3, 2013.

76. Isachenkov.

77. "Russia Designs New Types of Intercontinental Missiles," *The Voice of Russia*, December 18, 2012.

78. Howe, "Some Thoughts on Future Intercontinental Conventional Warfare."

79. For more information, see Eugene Miasnikov, "Counter Force Potential of Conventional Precision Guided Munitions," Moscow, Russia: Center for Arms Control, Energy and Environmental Studies, Moscow Institute of Physics and Technology, 2002.

80. Ibid.

81. Wikipedia contributors, "Penetration Aid," Wikipedia, The Free Encyclopedia, last updated March 30, 2018, available from https://en.wikipedia.org/w/index.php?title=Penetration_aid&oldid=833267111; "US Missile Shield Unable To Repel Missile Russian ICBM attack: Chief of Strategic Missile Forces," RT News, December 16, 2015.

82. Olga Bozhyeva, "Developers Called Launch of Sarmat ICBM Warhead a 'Fantastic Success'," *Moskovskiy Komosmolets*, April 20, 2016; "Yu-71 Hypersonic Warheads for Arming Sarmat ICBMs Tested From Dombarovskiy Position Area," *Izvestiya*, May 5, 2016.

83. James R. Howe, "Overview of Boost Glide Vehicle Technology and Military Utility," unpublished research, 2012.

84. Zia Mian and Alexander Glaser, "Global Fissile Material Report 2015: Nuclear Weapon and Fissile Material Stockpiles and Production," Rev. 3, presented at United Nations, NPT Review Conference, New York, May 8, 2015, available from fissilematerials.org/library/ipfm15.pdf; Bill Gertz, "China Adds Warheads to Older DF-5s," *The Washington Times*, February 10, 2016.

85. Wikipedia contributors, "DF-41," Wikipedia, The Free Encyclopedia, last updated April 4, 2018, available from <https://en.wikipedia.org/w/index.php?title=DF-41&oldid=834109437>.

86. William Wan, "Georgetown Students Shed Light on China's Tunnel System for Nuclear Weapons," *The Washington Post*, November 29, 2011, available from https://www.washingtonpost.com/world/national-security/georgetown-students-shed-light-on-chinas-tunnel-system-for-nuclear-weapons/2011/11/16/gIQA6AmKAO_story.html?utm_term=.380940314243.

87. "Russian Factory Upgraded to Make New ICBM," Interfax-AVN Online, February 2, 2015.

88. Khrunichev State Research and Production Space Center, available from <http://www.khrunichev.ru/main.php?lang=en>.

89. Alexander Vershinin, "The Urals Smithery That Became a Forge for Russia's Nuclear Shield," *Russia Beyond*, March 21, 2016.

90. Wikipedia contributors, "Borei-class Submarine," Wikipedia, The Free Encyclopedia, last updated May 30, 2018, available from https://en.wikipedia.org/w/index.php?title=Borei-class_submarine&oldid=843649174.

91. Ibid.

92. "Russia: New Propellant Doubles Performance of Solid-Propellant Missiles," *Krasnaya Zvezda*, May 26, 2012.

93. Dave Majumdar, "Russia Is Building the Largest ICBM Ever (And America Should Be Worried)," *The National Interest*, May 9, 2016.

94. "Col-Gen (Ret.) Yesin Assesses Current Status of Russian Strategic Nuclear Forces (Part 2)."

95. Pavel Podvig, "Russia to spend \$70 billion on strategic forces by 2020," *Russian strategic nuclear forces*, February 24, 2011, available from http://russianforces.org/blog/2011/02/russia_to_spend_70_billion_on.shtml.

96. Bukharin, p. 116.

97. Steve Inskeep, "Gen. Philip Breedlove on How NATO Should Deal with Russia," NPR Morning Edition, November 2, 2015.

CHAPTER 11. A CLINIC ON CLAUSEWITZ: LESSONS OF RUSSIA'S SYRIA CAMPAIGN

Stephen J. Blank

When Russian President Vladimir Putin announced a partial withdrawal of Russian forces from Syria in March 2016, he claimed that Russian troops had achieved their original objectives.¹ Immediately, several, though by no means all, analysts in Russia and the West challenged Putin's assertion, indicating that he either failed to accomplish his original objectives or that he only achieved them in part.² However, not only is it clear that there was at best a realignment of forces, not a withdrawal, this chapter also argues that Putin's assessment at that time was correct—even if the road to that achievement took longer and was more circuitous than originally planned.³ In other words, Putin intervened in Syria in a limited war manner and, as of May 2016, largely accomplished the objectives he had set out for Russia. Beyond that, by October 2016, he had not only retained the strategic initiative there but also his achievements had grown beyond those that were already visible in March. Although this may yet turn into the quagmire forecast by former U.S. President Barack Obama, there was no sign of that as of October 2016.⁴ However, by the spring of 2017, despite ongoing Russian victories—e.g., the siege of Aleppo—there are signs that Moscow might be beginning to encounter problems common to counterinsurgency wars; namely, translating successful military operations into lasting and successful political accomplishments that would allow Moscow to reduce its military footprint in Syria, and preside over a newly stable, and thus, reconstituted Syrian Government.

Consequently, there are critical lessons of Russia's Syrian campaign that we must take to heart even as Russia assimilates its own lessons from this campaign. Putin's achievement and the now emerging potential for new problems for Russia growing out of earlier successes suggests that, unlike many other contemporary statesmen, he understands the purposes and limitations of limited war. Furthermore and despite a flood of commentary belittling him as a strategist, he has shown himself to be a genuine strategist if we grasp what that means in Russian as well as Western terms.⁵ Indeed, we ignore the lessons learned and taught by the Russian forces in Syria at our peril. This flood of negative commentary about Putin and Russia, whatever its merits (and it is not without valuable information), demonstrates the surpassing ignorance of much of our intellectual-political, and even military, establishments concerning Russia as well as questions of strategy and contemporary war and peace. Nevertheless, the preceding observations do not mean Putin is a military genius, for if we are right and the problems of translating victory into a new legitimacy remain insuperable, it will show that there are limits to Putin's strategic intelligence and to the capabilities of Russian forces that also must be factored into account.

When it comes to Russia, too many writers abroad, as well as official Russian and even foreign governmental spokesmen, give us the illusion that appears as truth. The analyst has the responsibility of presenting truth stripped of the pleasant disguise of illusion. The illusions are particularly manifest in too much of the United States, especially seen in the Obama administration's commentary on Russia's war in Syria and in the continuing coinciding absence of any discernible U.S. strategy for Syria or Russia. These problems have

continued unresolved into the very different Donald Trump administration.⁶ Indeed, the administration even has trouble stating that it is engaging in a war. Obama's confident but ignorant assertion that Putin would end up in a quagmire (because that is where the United States ended up) provides several lessons that Obama's successors must take to heart, because Obama drew the wrong conclusions from them even if Putin does ultimately end up in a quagmire.⁷ Like Otto von Bismarck, Putin has not only learned from others' mistakes, he has profited from them.

Russia's military operations in Syria represent a classic manifestation of Carl von Clausewitz's dictum that war is an act (or acts) of force intended to compel the enemy to do our (i.e., in this case, Moscow's) will. Surprisingly, this by now banal observation evidently comes as a surprise to many Russia observers as if it were conceivable that Putin used force for no discernible strategic or policy purpose.⁸ Thus, Moscow's or anyone else's "intervention" in a third-party civil war, like Syria, is an act of war to compel one or more sides to do the "intervener's" will. Equally, if not more importantly, Russia's intervention and subsequent operations there carry important lessons for us about war and Russia that we must learn or ignore at our own peril.

Indeed, in Syria, at least as of this writing in June 2017, Putin has conducted a clinic on Clausewitz's teachings about war that can serve as a textbook example of how to use limited forces to attain strategic and political objectives. Or, as Clausewitz would say, to use war successfully as an instrument to achieve the goals of policy or politics (the word "politik" in German means both things) by other means. The fall of Aleppo in early 2017 after a brutal siege and bombing

campaign in addition to a combination of Russian air strikes and Syrian, Iranian, Russian, and Hezbollah's ground forces not only represented a major defeat for the anti-Assad insurgency but also portended profound geopolitical outcomes, whose implications resound far beyond Syria and the Middle East.

Not only did the fall of Aleppo open the door for Russia, Iran, and Assad's government to launch a political process looking to stabilize and eventually end the insurgency and civil war, but it also opened the door to a Moscow-sponsored effort to keep both Iran and Turkey "in harness" with Russia regarding Syria and potentially other Middle Eastern issues. Third, Russia has systematically sought to enmesh the United States in participating in, and thus, legitimating this potential political process as a way to reopen a strategic dialogue with Washington, promote a supposed anti-terror coalition led by both states, and then move on to other issues that divide these two governments. In other words, Russian strategy and operations are not divorced as is all too common in U.S. policy and thinking.

AMERICAN STRATEGIC FAILURES AND RUSSIA

Russia's success contrasts starkly and sharply with the abysmal failure of the Obama administration's use of force to achieve any kind of viable strategic objective and political outcome. The Obama administration's inability to define a feasible political outcome and its apparent overall disengagement from the notion that force can and should be used to achieve clear political goals was the root of this policy failure. (It is still far too early to assess the results of the Trump

administration's use of force against terrorists in Iraq and Syria, although it seems to be gaining successes.) In fact, the utter absence of U.S. strategic thinking or capability in Syria (if not potentially in Europe and elsewhere) drives or at least facilitates much of Russian military policy whether in Ukraine, Syria, or Central Asia. It is not merely a question of vacuums opening up that Putin can then exploit. Rather, it is the fact that Western incoherence creates both opportunities and perceived threats to Russia that it can or feels that it must address in order to advance long-term strategic ambitions.⁹ In Afghanistan, for example, Russian policymakers have long publicly expressed their lack of confidence in American policy, even though they need America to hold the country together for there is no other alternative in their view.¹⁰ Thus, Putin clearly mocked the failure of U.S. policy in Syria as a reason for intervening there.¹¹

Indeed, no Russian spokesmen, either analysts or officials, miss a chance to point out the utter strategic failure of U.S. interventions in Iraq, Libya, Afghanistan, and now Syria, and to justify Russia's intervention in Syria on that basis. Russian spokesmen have long decried the folly of American intervention in those countries as sowing the seeds of the Arab Spring and miss no chance to lambaste what they believe is the U.S. policy of armed intervention to promote democracy, its incoherent approach, and disastrous outcomes (i.e., endless wars).¹² Obviously, this is not an unfounded criticism of American policies, and those policies represent a dubious legacy left for the Trump administration to unravel. In Ukraine, too, the absence of coherent Western strategic thinking created both opportunities, and from Moscow's standpoint, dangers that it felt it had to address quickly.¹³

This vacuum also manifested itself in Syria. Simultaneously, it also created opportunities for bold action to achieve pre-existing Russian strategic ambitions that were by no means hidden, had anyone bothered to examine them. Indeed, John Parker's study of Russian policy for the National Defense University (NDU) makes clear that Russia was already escalating its presence in Syria since 2001.¹⁴ Likewise, other sources make clear that Moscow was seeking to expand its overall horizons in the Middle East to assert its great power assertions and thwart U.S. policy even as they misread Russia's military intentions.¹⁵ At the same time, we now know that planning for the actual intervention began in January 2015 at Iran's request, given Assad's visible loss of territory and power.¹⁶ This cooperation grew out of the preceding Russo-Iranian rapprochement in 2012-2015 that also was connected with a common perspective on Syria and U.S. policy and was cemented during the summer of 2015 by talks between Iranian General Qassem Suleimani and Russia.¹⁷ The confluence of risks to Russia's long-held strategic interests and opportunities to take resolute action to attain those objectives against those threats makes Syria not merely an example of Putin's tactical opportunism but, rather, of opportunism in the service of discernible strategic interests. Yet, it is almost impossible to get a hearing in the West for the notion that Putin is a real strategist, another telling indicator of our myopia.¹⁸ The West's inability to take seriously either Russian interests or the possibility of Moscow acting here, even though we had plenty of intelligence signals, highlights the first lesson of this campaign.¹⁹ This intelligence failure pervades all of our policies and approaches to Russia, as the utter ineptitude displayed during the Russian

hacking of the 2016 Presidential election so tellingly demonstrates.

All these facts represent a first lesson derived from Russian operations in Syria, namely that Russia has a strategy that in Syria, if not elsewhere, has allowed it to prevail in limited war while we do not; and we do not even recognize that Russia does have such a strategy. There are many more, and they have exceptionally negative implications for the West. First (and our second lesson), Russia's success here, as well as the fact that after 2 years Russian forces are ensconced in Crimea and no efforts are underway to help Ukraine recover its territory lost to Russian aggression, can only convince Putin et al., that: 1) the recourse to force works; and, 2) the West is confused, uncertain how to react, and will not effectively or coherently challenge Russia the next time it uses force in response to a future crisis. The idea that force can be used successfully not only encourages Putin to launch further probes in Europe as now regularly occur in the Baltic and in the daily violations of the Minsk II accord; it also validates his policy to the most crucial audience he faces—namely, the Russian population. Especially in the absence of any kind of Western strategy to bring the truth to Russia's population by a Western information operation that is not propagandistic but truthful and pervasive, Russia's successes only reinforce Putin's narrative that Russia is surrounded by enemies, is in a state of conflict with them, and that force is a necessary and desirable response to this situation that merits popular support.²⁰ Indeed, public opinion polls show that the Russian population not only expects war but also expects it to have beneficial results and "clarify the situation."²¹ This is not the outcome that is being reported or wanted by Western governments and analysts, including the

Obama administration, nor does it suggest that the still inexplicably cherished hope that Russia can somehow be a partner for the West has any foundation in reality. Another subsequent result of our failure is the fact that Putin with impunity continues to attack elections throughout the West, not only in the United States but also in the Netherlands, France, and Germany; launch coups in Montenegro; and regularly threaten European allies with missile and nuclear attacks.

Accordingly, this ongoing misperception of Russian reality, and what it wants in Syria and elsewhere, represents a second, equally crucial and dismaying lesson. That lesson is that both our intelligence and policy processes concerning Russia are severely deficient in understanding with whom and what we are dealing. They are equally deficient in understanding contemporary war and the critical essentialness of a sound strategy and strategic process. Neither can one say that the latter is anywhere discernible in the Trump administration. This lesson is therefore an indictment of our political, military, and intelligence elites' sloppy or defective thinking about Russia; war; strategy; and eternal as well as recurrent political phenomena like revolution, civil war, and failing states.

Therefore, an objective, dispassionate (even if impassioned) analysis of Russian operations in Syria must account for both the opportunities and dangers that Moscow saw and still sees, as well as its overall interests in this Middle Eastern theater, the lessons it has learned, and those that it has communicated to us and other audiences through its war in Syria. For, if we are to be honest with ourselves in analyzing Russian military operations and goals, especially as they are juxtaposed or contraposed with U.S. operations and strategy, Russia has won every war in which it has

participated since 2000. Washington has lost all of its wars, and Washington's Syrian debacle is merely the latest example of what can only be described as gross strategic incompetence.²² That last fact alone, not to mention our failures in Syria and Ukraine, render misplaced complacency on our part about Russia, Russian military thinking, and operations quite dangerous and equally misconceived. Among other things, in essence, this means learning to see the world through Russian eyes and to overcome decisively the fallacy of "mirror imaging." We must understand Putin's policies and goals by trying to grasp them as he would.²³

A perfect example of this Western fallacy appears in an article discussing the reasons for the drawdown announced in March 2016. It assumes that we cannot know what goes on in Putin's mind because of the rigorous secrecy concerning decision making in Russia that he has established. Furthermore, the author then claims that the only way to make sense of Russian policy is to fit Russia into one or another of the currently existing international relations frameworks in the West (e.g., that the price of oil governs Russian policy). Alternatively, we must strive to match Putin's words and deeds. In the latter case, we still cannot know whether our analysis is true or false because that mode of analysis derives from seeing what he has said and then what he has done. Therefore, we should return to social science teaching and see that although we cannot postulate perfect rationality, all people, including Putin, try to act on behalf of calculable interests. Since Putin is allegedly a rational power maximizer, and his system allows him great scope of action to maximize power, he is indeed doing so, and this is his primary motive. The author then writes, "How do I know that? Because that's what I would do if I were

him, and I have no probabilistic reason to believe that he is less rational than I am."²⁴

This crude, ethnocentric, and primitive example of what passes for Kremlinological analysis these days is a textbook example of mirror imaging and is quite mistaken, even if the author is right—that Putin is a rational power maximizer (whatever that means). As Bertrand Russell observed concerning the Soviet Union in 1920:

To desire one's own economic advancement is comparatively reasonable; to Marx, who inherited eighteenth-century rationalist psychology from the British orthodox economists, self-enrichment seemed the natural aim of a man's political actions. But modern psychology has dived much deeper into the ocean of insanity upon which the little barque of human reason insecurely floats. The intellectual optimism of a bygone age is no longer possible to the modern student of human nature.²⁵

Accordingly, we begin with an assessment of what Russia's overall objectives in the Middle East and Syria have been; the dangers that Russia perceived (i.e., not what the United States believed that Russia discerned) that led it to enter forcefully into Syria's civil war; its strategy; operational lessons; and, finally, the consequences of its apparent victory to date. We then conclude by analyzing the lessons we should learn, and that Moscow presumably has learned, from this war and which we, in turn, should learn as well, including the difficulties in moving to the reconsolidation of a viable, legitimate, and thus effective Syrian state.

RUSSIA'S GOALS AND OBJECTIVES

Although Russia's goals regarding Syria have been extensively reviewed in the media, few, if any, writers have bothered to look at the broader, regional, and

global objectives for which Moscow has intervened or beyond the crass, though not incorrect, notions that Moscow seeks to extricate itself from the isolation generated by the invasion of Ukraine, that Russia may be using Syria to leverage that process, and that Putin seeks to maximize his domestic standing and power. Likewise, while it is clear that Putin, as noted previously, aims to maximize his power by foreign policy successes, that insight is often the end, not the beginning, of analysis as it should be. According to Sergey Karaganov, one of Russia's leading foreign policy analysts, one of the reasons that Russia is intervening is that Russian involvement in Syria "diverts everyone's attention from Ukraine and thus moves . . . [Russia's] relations with the West to another level."²⁶ This goal was achieved completely and is still the case as Ukraine has fallen out of public commentary. A second analytical point that is undoubtedly correct as far as it goes, but is insufficient as a stand-alone cause for Russia's intervention or in its expansive claim to be the primary goal of Russian intervention in Syria, is that Putin's intervention primarily meant to show that Russia is a great power that can conduct itself independently and force the world to take its behavior and interests seriously. Similarly, two other prominent analysts, Nadezhda Arbatova and Alexander Dynkin, write:

The main goal of Russia's involvement is to show that Moscow's assistance may play a crucial role in the settlement of major issues, such as the Syrian conflict and international terrorism, and to underline the point that the Islamic State (also known as ISIS or ISIL) is the greatest threat the world faces. Any improvement in Russia-West relations through cooperation on such issues would increase the chances of a lasting peace in Ukraine.²⁷

While both these objectives are insufficient as explanations of Russia's goals in Syria and the Middle East because they leave many questions unanswered, they almost certainly are part of the answer. In addition, these analyses tell us that in Syria, Moscow pursues goals connected to domestic, regional, and global interests. Moreover, these objectives are not only long-standing ones, but are both political and military in nature. For analytical purposes, the latter may be divided into both strategic and operational goals, as it is too early to discern many tactical objectives and lessons of warfighting (as opposed to tactical political objectives of conquering certain territories). One exception to this last point, however, is the clear desire to use Syria as a testing ground for new weapons and capabilities to make sure they work, advertise them for sale abroad, and impress upon Western audiences that Russia now has these capabilities and will use them if necessary.²⁸ Many reports indicate that potential customers are impressed by the use of Russian weapons in Syria and that Russia avidly cites Syria as a testimonial for its weapons.²⁹ Indeed, Putin has intimated that one goal of the operation was to test and display capabilities and certain operations (e.g., firing Kalibr cruise missiles from Caspian Sea-based frigates on Putin's birthday in 2015 clearly was aimed to broadcast Russian capabilities to both potential buyers and adversaries alike).³⁰ Similarly, when the inferior aircraft carrier, the *Kuznetsov*, fired off some missiles, this advertised to Russians, and anyone else who was paying attention, that Russia has this capability.³¹ Yet, as can now be seen, a new benefit to Moscow is emerging in this context: it is learning what the defects of its weapons and presumably military structures in general are in the context of genuine operations, not exercises.³²

Consequently, it will incorporate these lessons into the design of its new weapons.³³

Finally, some Russian objectives have either come into sharper focus or emerged because of the fighting, particularly the determination to humiliate Turkey after it shot down a Russian fighter, and the desire to aggravate European disunity by a bombing campaign that would generate mass flight of refugees to an overburdened Europe.³⁴ This should not surprise us, for objectives often evolve with the course of combat operations. War aims and lessons therefore frequently change because of unforeseen operational and strategic realities. Moreover, it is a sign of many analysts' strategic failings that they claim that such adaptations signify Russian failure, rather than realizing that they indicate an unexpected flexibility and determination (i.e., attributes of strength, not weakness).

Thus, because of the sharp economic warfare waged by Moscow against Ankara for downing a Russian jet a year ago, President Recep Erdogan has had to restore Turkish ties with Moscow to include intelligence cooperation in Syria and potential Turkish imports of Russian military systems. Meanwhile, because of the abortive coup against Erdogan in July 2015, the Turkish Army has been decimated and officers with connections to the North Atlantic Treaty Organization (NATO) are being purged in droves.³⁵ Yet, once Turkey reversed itself immediately after this coup and essentially submitted to most of Russia's conditions, Moscow, despite enduring differences in policy and the intrinsic difficulties of dealing with Turkey, is rather successfully exerting itself to gain Turkey's assent to its endgame in Syria.³⁶ Moreover, as Moscow builds its anti-access area defense (A2/AD) network out of separate "bubbles" in and around the

Black Sea, the Caucasus, and Syria, it virtually surrounds an increasingly anti-Western Turkey with Russian military forces for the first time in history. At the same time, Russia's formidable air and ship defense network blunts Israel's aerial superiority over Syria and Lebanon, if not other countries.³⁷

DOMESTIC POLICY GOALS

Concurrently, as many writers and the Russian Government have noted, internal and external security, and the means of achieving them, are fused in Putin's Russia. Indeed, virtually all areas of Russian social and cultural life have been "securitized." This "securitization process" has gathered steam since the *National Security Strategy of 2009*, if not from the start of Putin's tenure. It continues to this day as the state takes over more and more responsibility for steering the entire socio-economic-cultural and political life of the country, and seeing ever more aspects of social life as being at risk from foreign ideas and influences.³⁸

This process pervades the *2015 National Security Strategy* that extends this securitization process to virtually all areas of socio-economic-cultural-political life.³⁹ Coinciding with the securitization process, we see an ongoing mobilization of the entire state for purposes of permanent, albeit mainly non-military, conflict with foreign governments, and the emergence of a national security strategy that aspires in practice to the status of being a whole-of-government program of actions.⁴⁰

This securitization and mobilization paradigm provides the context for understanding Moscow's Syrian gambit for the following reasons. As Moscow has itself frequently claimed, its perspective on the overall

Middle East is closely bound up with its perception of individual threats to the domestic stability of the government, particularly those connected with Islamic terrorism.⁴¹ Moreover, this commingling of internal with external threats is part of the officially sanctioned approach to national security and foreign policy in Putin's Russia. As the 2008 Foreign Policy Concept states, "Differences between domestic and external means of ensuring national interests and security are gradually disappearing. In this context, our foreign policy becomes one of the major instruments of the steady national development."⁴²

Many different scholars such as John Loewenhardt, Luke Chambers, and Vitaly Kozyrev all concluded that since public opinion is very interested in asserting Russia's great power standing, the elite and Putin must also be so interested, even if they were not so personally and emotionally committed to this idea as they are. Thus, the overwhelming evidence is that this sentiment grips Russian elites and society even without the government's systematic saturation of the media on this point. In 2000, Loewenhardt reported that, despite the fact that Russia's alleged status as a leading pole in global affairs was then understood to be increasingly more rhetorical than real:

In one of our interviews, a former member of the Presidential Administration said that the perception of Russia as a great power 'is a basic element of the self-perception of high bureaucrats.' If a political leader were to behave as if Russia was no longer a great power, there would be 'a deeply rooted emotional reaction in the population.'⁴³

This concept that Russia is simultaneously both inherently a great power and a state that deserves to

be seen at home and abroad as such, or as an empire in order to survive—even if this can only be asserted irrationally and not by empirical demonstration—is embodied in the term “Derzhavnost” (tellingly, a word that emerged into popularity only in the 1990s when Russia could barely sustain that concept). This belief in Russia’s great power destiny is an article of faith not subject to critical thinking. By trying to banish any hope of understanding Russian politics through critical rational analysis, exponents of this view also typically overcompensate for the fear that, if Russia is not a great power and not seen as such, then it will be nothing. Putin, Boris Yeltsin, and many other figures like former Foreign Minister and Prime Minister Yevgeny Primakov have repeatedly echoed this sentiment about Russia as an inherent great power who must act independently of other “poles” of the international system. For example, upon becoming Foreign Minister in 1996, Primakov told *Rossiyskaya Gazeta* that:

Russia’s foreign policy cannot be the foreign policy of a second-rate state. We must pursue the foreign policy of a great state—the world is moving toward a multipolar system—In these conditions we must pursue a diversified course oriented toward the development of relations with everyone, and at the same time, in my view, we should not align ourselves with any individual pole. Precisely because Russia itself will be one of the poles, the “leader-led” configuration is not acceptable to us.⁴⁴

In this same context, both Luke Chambers and Vitaly Kozyrev separately observed in 2010 that the Russian President’s conduct of foreign policy is a critical aspect of the restoration of both the state and Russia’s great power standing abroad, the two key objectives of Putin’s policies throughout his tenure in office. Thus, actions assessing Russia as an independent, sovereign

great power evoke strong public support.⁴⁵ Furthermore, as Kozyrev observes:

Many decisions concerning security issues are related to the factor of *legitimacy of the ruling elite*, rather than the correlation between Russia's power and capabilities. Being unable to secure required conditions for a qualitative breakthrough toward an effective economic model and relying increasingly on natural resources for economic growth, the governing groups constantly feel a danger of social unrest and the pressure from competing influential political and business circles [*italics in original*].⁴⁶

This understanding becomes particularly important because the Russian Government explicitly regards its domestic security as unstable and the state as having failed to achieve the "necessary level of public security."⁴⁷ This instability is traceable, in no small measure, to Islamic terrorism and criminality associated with that terrorism.⁴⁸ Therefore, preventing the spread of terrorism beyond the North Caucasus and ultimately eliminating it in the North Caucasus are major state priorities. Russian leaders' endless repetition of the fact that they intervened in Syria to prevent terrorists from returning home, clearly has a basis in Russian policy and implicitly underscores the connection from internal to external security, even if Moscow facilitated the terrorists' movement to Syria to reduce the incidence of terrorism in the North Caucasus.⁴⁹ A source in security structures in the North Caucasus, however, said bluntly:

Of course, we did. We opened borders, helped them all out, and closed the border behind them by criminalizing this type of fighting. If they want to return now, we are waiting for them at the borders. Everyone's happy: they are dying on the path of Allah, and we have no terrorist

acts here, and are now bombing them in Latakia and Idlib. State policy has to be pragmatic; this was very effective.⁵⁰

Meanwhile, this domestic instability clearly impedes realization of the great project of the Putin regime. This includes restoring Russia to a great power status not only in the former Soviet sphere but beyond it, particularly in the Middle East, an area that Moscow still maintains is close to its borders even though those borders are hundreds, if not thousands, of miles further away from the Middle East than they were in 1990. Therefore, Moscow's actions in Syria represent a particular manifestation of the much broader phenomenon of commingling of both internal and external means of ensuring security in order to realize this great power program. As Luke Chambers wrote in 2010:

Endogenous and exogenous behavior and processes in the last decade relating to Russia should not be viewed as discrete: instead, there is analytical value in evaluating the Kremlin's domestic and foreign agendas as part of a wider, unitary strategy to restore Russia's role as a global actor. The design pursued domestically exerts a strong influence on foreign policy; accordingly, the long-term goals of Russian foreign policy are lodged within the Russian state as well as without.⁵¹

Furthermore, as Chambers and this author, among many others, have observed, this great power project cannot be completed strictly within Russian borders. Imperialism and power projection abroad, most recently seen in Ukraine and Syria, are intrinsic to and inherent in the structure and nature of the Russian state.⁵² Thus the long-standing desire to restore Russia to its previous Cold War prominence in the Middle East at Washington's expense dovetailed with a threat perception that formed quite rapidly during the Arab

Spring in 2011 of the conjoined threats to Russian interests in that revolutionary upsurge. As Prime Minister, Putin very quickly expressed fear that the first revolts in Tunisia, Egypt, and Libya would “inevitably” lead to greater violence in the North Caucasus.⁵³ Similarly, then-President Dimitry Medvedev openly expressed the Kremlin’s belief that these insurgencies were the direct result of a foreign conspiracy against the Russian system. Speaking in the North Caucasus, he stated, “The situation is tough. We could be talking about the disintegration of large, densely populated states, talking about them breaking up into little pieces,” he said in comments broadcast on state television.

These are not simple states, and it is highly probable that there will be difficult events, including fanatics coming to power. This will mean fires for years and the spread of extremism in the future. We need to look this straight in the eyes. . . . They have prepared such a scenario for us before, and now more than ever they will try and realize it. In any case, this scenario won’t succeed.⁵⁴

Thus from the beginning, Moscow called Middle Eastern revolutions a real threat to its domestic order and that justification for acting in the Middle East has continued uninterrupted since then. It would appear that for the Russian Government, all opposition to Russian allies and/or interests is inherently terrorist in nature and justifies virtually any kind of response.

Beyond these factors, other analysts have advanced several other candidates for important domestic goals that might be or have been well served by a short victorious war in Syria. Dmitiri Trenin, Director of the Moscow office of the Carnegie Endowment, adds to those factors discussed earlier the idea of “expanding Russian presence in the region’s arms, nuclear, oil,

and gas, food, and other markets.” This would reward certain key interest groups in Putin’s ruling “coalition,” attract foreign investments from Gulf regimes, and support energy prices by coordinating policies with principal Gulf oil and gas producers.⁵⁵ Moscow’s efforts to acquire such loans and promote such coordination, even if they have hitherto failed and reveal thereby the limits of Russian capabilities, testifies to the breadth of its interests and the objectives that success in Syria open up for it.⁵⁶

Economist Vladislav Inozemtsev adds to Trenin’s list the fact that, because Putin’s regime cannot deliver “bread” (i.e., tangible economic progress), it must compensate by forming a new political consensus around the obsession with Russia as a great power and that necessitates a foreign policy program of foreign policy adventurism.⁵⁷ Inozemtsev also adds as a second reason that the regime needed “to calibrate the state propaganda . . . the Russian public started losing interest [by mid-2015] in the Ukrainian issue,” and a new avenue for stimulating the obsession with Russia’s great power status was needed.⁵⁸ Lastly, he also emphasizes the need to obtain arms export markets and enhanced prestige for the armed forces and the regime and to keep the defense industrial sector fully employed to prevent discontent.⁵⁹ Adam Garfinkle, editor of *The American Interest*, also echoes this argument about the desirability of pumping up arms sales and enriching that sector in order to keep it going.⁶⁰ Certainly, key lobbies like arms sales and energy are slated to benefit from contracts relating to Syria.⁶¹ Inozemtsev and Trenin’s views logically suggest that Syria will not be the last manifestation of Russian military and foreign policy adventurism since too many stakeholders stand to gain from similar policies in the future. If we

add to those views the argument stated earlier that a key lesson of this campaign is that force works, then forestalling the next Syria becomes an objective of the utmost importance for Western governments.

Therefore, it is quite unlikely that Putin can alight from the tiger he has chosen to ride (i.e., the obsession with great power status) because, if Moscow were to rein in its ambitions to a more manageable size and refrain from its imperialistic behavior in the Commonwealth of Independent States (CIS) and the Middle East, the state might collapse. Since Putin cannot and clearly will not reform the economy to give it more dynamism at the expense of his and his cronies' power and wealth, foreign adventures are the only option left to him to maximize his popularity, legitimacy, and power at home. Absent bread, only circuses are left. This is not just the author's opinion; consider Trenin's observation:

The West is waiting for the combination of the Russian economy's structural problems, low oil and commodity prices, and Western sanctions to bite Moscow hard enough to make it change course and surrender its outsize[d] and outdated ambitions. The Kremlin realizes that such a surrender would lead to a collapse of the Russian regime and probably the Russian state as well.⁶²

If Syria is not the last of Putin's adventures, the West must be prepared to do better at deterring Russia and grasping Putin's tactics, strategy, and goals. War and imperial longings are now the only sign of the health of the state. Adventures like those in Syria and Ukraine are essential to perpetuating the state and for the defense of particular sectors of the state-controlled economy and the leaders of those sectors—namely, energy and arms sales. Indeed, the defense industry

stands to benefit from increased foreign sales due to their products' performance in Syria. Examination of Russian policies in Syria and the overall Middle East reveals the saliency of and linkages between arms sales and major energy deals as well.⁶³ Beyond that linkage, it appears from Parker's analysis that the steady ratcheting upwards of arms transfers to Syria in 2011-2013 through a naval screen prepared the ground for and was linked in Putin's mind to the need to prevent another "color revolution" in Ukraine. In other words, the successful and stealthy employment of the Navy and other organs to increase arms supplies to Syria helped convince Putin to invade Ukraine, as did the stamping out of revolutions in areas of importance to Moscow.⁶⁴

These critical energy and arms sales interests, along with strategic considerations, may even become more important in the future, given the economic crisis engulfing Russia. The energy deals Moscow has pursued with Middle Eastern producers are an attempt to enhance Russian leverage on energy supplies to Europe, which are in and of themselves political weapons for Russia. These deals and those for arms serve other major aims as well: enhancing Moscow's regional and overall foreign policy standing, obtaining profit for key elites, obtaining hard currency, and blocking the realization of American interests. In Libya and Egypt alone, Moscow lost US\$4 billion in arms sales due to the revolutions there.⁶⁵ As Ambassador to Russia in 2007, William Burns captured the motives for arms sales to local governments in the following manner:

A second factor driving the Russian arms export policy is the desire to enhance Russia's standing, as a 'player' in areas where Russia has a strategic interest, like the

Middle East. Russian officials believe that building a defense relationship provides ingress and influence, and their terms are not constrained by conditionality. Exports to Syria and Iran are part of a broader strategy of distinguishing Russian policy from that of the United States, and strengthening Russian influence in international fora such as the Quartet or within the Security Council. With respect to Syria, Russian experts believe that Bashar's [al-Assad] regime is better than the perceived alternative of instability or an Islamist government, and argue against a U.S. policy of isolation. Russia has concluded that its arms sales are too insignificant to threaten Israel, or to disturb growing Israeli-Russian diplomatic engagement, but sufficient to maintain 'special' relations with Damascus. Likewise, arms sales to Iran are part of a deep and multilayered bilateral relationship that serves to distinguish Moscow from Washington, and to provide Russian officials with a bargaining chip, both with the Ahmedinejad regime and its P5 1 partners. While, as a matter of practice, Russian arms sales have declined as international frustration has mounted over the Iranian regime, as a matter of policy, Russia does not support what it perceives as U.S. efforts to build an anti-Iranian coalition.⁶⁶

In this context, the economic gains to the state, defense sector, and perhaps most importantly to officials who thereby served their private pecuniary interest are critical. Thus, Burns observed:

Russia attaches importance to the volume of the arms export trade, to the diplomatic doors that weapon sales open, to the ill-gotten gains that these sales reap for corrupt officials, and to the lever it provides the Russian government in stymieing American interests.⁶⁷

Burns subsequently observed:

A variety of factors drive Russian arms sales, but a compelling motivation is profit—both licit and illicit. As former Deputy Prime Minister and senior member of the Duma Defense Committee Antoliy Kulikov told us, ‘Russia makes very bad cars, but very good weapons,’ and he was among the majority of Russian defense experts who argued that the laws of comparative advantage would continue to propel an aggressive arms export policy. . . . it is an open secret that the Russian defense industry is an important trough at which senior officials feed, and weapons sales continue to enrich many.⁶⁸

Beyond these combined geopolitical, domestic, economic, and private interests in improved relations with the Middle East, the Putin regime, at least since 2008, has undertaken a relentless propaganda at home to impart a “civilizational” basis to its foreign policy. Thus, in Europe, it masquerades as the last bastion of Christian civilization and values against a decadent Europe. In the Islamic world and with Muslim audiences, it similarly masquerades as an Islamic country or state. This ideological posturing allows it to do business, or aspire to do business, with any Arab country or Iran “with no questions asked.” As Alexey Malashenko wrote in 2008:

Russia accepts the semi-traditional nature of the post-Soviet Muslim regimes and is not obsessed with whether they are secular or not. Moscow is happy enough to recognize their ‘unique nature’ and loudly proclaims its skepticism over the idea of applying a Western model to them that is alien to their identity. The notions of ‘particularities of national democracy’ and the ‘need to preserve a specific civilization identity’ are music to the ears of Moscow politicians, busy promoting their own idea of ‘Russia’s own development pathway’ and their own variety of ‘sovereign democracy.’ Russia would

have these regimes in a state of eternal transition, making it easier to deal with the local authorities and maintain its presence in the region.⁶⁹

Therefore, regarding Russian motives for engaging the Middle East before the invasion of Ukraine in 2014, we may see four principal dimensions to the policy:

1. Stabilizing the North Caucasus and other Muslim areas against the possibility of infection by ideological-political “viruses” like those that generate Islamic terrorism in the Middle East and thereby stabilize the broader domestic order;
2. The determination to enhance the legitimacy of the current Russian political order by ever more displays of unconstrained great power behavior amidst a general mobilization of the state and society to a state of permanent expectation of conflict;
3. The private and state economic gains that accrue to elites from arms and energy deals in the Middle East; and,
4. The geopolitical exigencies of strengthening Russia’s position in the Middle East at Washington’s expense.⁷⁰

All these factors display signs of using foreign policy opportunities to entrench a particular dominating elite coalition in Russian policymaking. However, since the 2014 invasion of Ukraine, the threats to stability within Russia due to economic distress and state incapacity to deal with it have grown, along with its enmity toward the West by a considerable order of magnitude. For those reasons, the intervention in Syria cannot be explained either only or primarily by

domestic and economic considerations, but equally by prominent geopolitical and strategic considerations. Furthermore, we can see from the foregoing analysis that the pressure for such displays of both international machismo and of a permanent threat directed against Russia create an inherent necessity for taking ever bigger risks.

Domestic instability breeds an addiction to foreign policy adventurism. Moscow's arrogant displays of power and strength in foreign relations also betray a necessity to keep winning at games with ever bigger stakes, regardless of consequences. These considerations are among the many factors that contribute to placing Russia in a permanent state of conflict or siege with its interlocutors where Putin is compelled, by virtue of his own interests, to "seek the bubble reputation even in the mouth of the cannon." Thus, Syria may not be the last of his provocations but just one in a series of escalating Russian provocations.

FOREIGN POLICY GOALS

Therefore, Moscow's military operations also serve specific, identifiable, and long-standing regional and global foreign policy goals. As we have noted earlier, these regional goals include objectives pertaining to Ukrainian and European security more broadly. Russia's current objectives in the greater Middle East apparently derive from Yevgeny Primakov's tenure as Foreign and Prime Minister, 1996-1999. In many ways, Russian policy or strategy toward the Middle East is essentially negative. It is haunted by the prospect of any foreign power getting a lasting foothold there and from there into the CIS. Russian policy, like Johann Goethe's Mephistopheles, incarnates the

spirit of eternal negation (i.e., preventing anyone else from stabilizing the area). As historian Niall Ferguson observed, "Russia, thanks to its own extensive energy reserves, is the only power that has no vested interest in stability in the Middle East."⁷¹ Russia until now has been able occasionally to obstruct or frustrate foreign policies of other governments, but until now, it has failed spectacularly to create anything of a positive lasting nature abroad. Yet as we suggested, the time is here or coming soon when it will have to try to stabilize Syria if it is to cash in on the victories that its military strategy have given it. As of this writing, the success of that strategic endeavor remains an open question.

Meanwhile for Moscow, it remains the case that the CIS and the adjacent Middle East cannot be allowed to come under foreign influence. Instead, Primakov, Yeltsin, and the Putin regime all argued that Russia has global interests and its potential, not its reality, is what counts. The doctrine of multi-polarity postulates that Russia increasingly lives in a multipolar world where the United States cannot be allowed to dominate anywhere (e.g., the Middle East). Russia, as a great power due to its potential if not yet its reality, must play a global role, not just a regional one, and be seated at the "presidium table" of all international affairs. We can characterize the Kremlin's policy as strategic denial across the board in economics, diplomacy, and military policy. Moscow discerns threats of varying intensity, but always of substance from **any** consolidated Western presence in Europe or in the Middle East, that would open the way to that presence in the CIS. Sergei Arutinov, a renowned ethnologist in Moscow, argued in the 1990s:

A Turco-Israeli close cooperation is a positive fact from the world-wide point of view. But generally it would worsen Russian-Turkish and Russian-Israeli relations. It may also provoke the reemerging Anti-Semitism in Russia. It will evoke much anxiety in Armenia too. First, a mutually acceptable solution about Karabakh must be found and only then a Turkish-Israeli cooperation may start to be realized in the Near East and the former USSR [Union of Soviet Socialist Republics] states. Otherwise, it may trigger Russian-Iraqi, Russian-Iranian, Armenian-Iranian rapprochements, [and] push Armenian extremists in the world to a cooperation with Palestinian extremists.⁷²

For his part, Primakov long argued that it is essential for Russia and the Middle East that the United States not play the sole role of regional hegemon.⁵⁸ Russia must constitute an equal and opposing presence. In 1991, on a mission to the area to save the Soviet Union's regional position, he said that Middle Eastern leaders "consider it necessary that a united economic and military-strategic area of the USSR be preserved." Primakov's views, however, were intended to contrapose Russia everywhere as an antipode to the United States. He observed:

Yes, Russia is weakened. No, Russia cannot be compared with the Soviet Union, not even in terms of military potential—Nevertheless, everywhere one senses an interest in Russia's being present as an active participant in events, in Russia's attempting to balance the negative tendencies that could arise from a drive to establish a unipolar world.⁷³

Thus Primakov sought a global standing for Russia where it would be equal to the United States in regard to regional security issues all over the globe, not only the Middle East. Allegedly, this would constitute a more "democratic" system based on the United

Nations (UN) having the right to veto any U.S. unilateral intervention. This, of course, gave Russia, as a member of the UN Security Council, a veto over such interventions anywhere.⁷⁴

More specifically, Primakov counted on the continuation of forces in the Middle East who resisted American hegemony and were looking to Russia to counter it (e.g., Iran, Saddam Hussein's Iraq, and Syria):

They wanted a USSR presence in the Middle East because this would preserve the balance of power. Nobody wants some power to maintain a monopoly position there. These states understand that our country creates an area of stability in this region with its new policy of non-confrontation with anyone, a policy oriented toward searching for ways of making interests coincide with those of other countries.⁷⁵

He also argued that, for Russia to succeed in the Middle East, it had to oppose the United States and not surrender to its will.

We explain our inadequate activity in the Near East by the fact that our efforts were aimed at evening our relations with the former cold war adversaries. But, this was done without an understanding of the fact that, by not surrendering our positions in the region and even strengthening them, we would have paved the way to the normalization of relations. A shorter and more direct way.⁷⁶

The other critical point of this approach to the Middle East, beyond countering American power and influence there, remains the development of relationships with key countries there. This would create a functioning bloc or alliance of like-minded states against U.S. ambitions in the Middle East, particularly Iran, even though Iran is a problematic independent

actor, and Moscow consistently opposed its nuclearization. Nonetheless, what is key for Moscow was and is its orientation to partnership with Russian aims on a host of regional security issues in the Middle East. This point also emerged under Primakov. Yeltsin's adviser, Andranik Migranyan, stated:

In many areas, Iran can be a good and strategic ally of Russia at [the] global level to check the hegemony of third parties and keep the balance of power. . . . Russia will try to further cooperate with Iran as a big regional power. We will not let the West dictate to Russia how far it can go in its relations. Of course, we will try at the same time not to damage our relations with the West.⁷⁷

Russia also clearly wanted and still wants to "internationalize" the issue of Gulf security; obtain a role as a recognized guarantor of the area, either through the UN or through a regional alignment; and displace U.S. primacy there, even as it recognizes Washington's strong, regional interests.⁷⁸ Accordingly, Primakov supported the removal of foreign U.S. troops from the Gulf.⁷⁹ Iranian officials' statements at that time also indicated an overt desire to arrive at a "division of responsibilities with Russia in regard to regional conflicts and energy issues."⁸⁰

If we fast-forward to the present and more recent past, the essential continuity becomes quite visible. By 2014, Russian goals as well as capabilities in the Middle East had expanded. Obviously, they included support for Bashar al-Assad's regime against the rebels even though military intervention had not yet occurred. More than support for Assad, whom Moscow at one time entreated to step down, this is a question of preserving his pro-Russian state even if it is reformed in some unspecified way.⁸¹ Indeed, Putin reportedly told

Assad in October 2015, "We won't let you lose."⁸² As we now know, Russia has been willing to entertain and even seek solutions providing for Assad to step down while preserving his state, but those apparently have gone awry. The key objective is not preserving Assad. Rather, it is preserving his pro-Russian state system once a settlement is reached.⁸³ By 2015, despite everything Moscow had done until then, that state was in danger of being swept away by the insurgency. Iran reportedly warned Putin of this in January 2015; planning then began for an intervention, followed by a major snap exercise in southern Russia in the spring of 2015 to rehearse the modalities of that intervention. By the summer, a massive sea and airlift were underway. Russian military officials said, "the drills were aimed at testing the readiness of the military to 'manage coalition groups of troops in containing an international armed conflict'." In addition, the Ministry of Defense said, "Troops will simulate 'blocking and destroying illegal armed formations during joint special operations'." Yet nobody in the West grasped what was happening.⁸⁴

Beyond that objective of rescuing and stabilizing Assad's state, if not Assad himself, Moscow sought and still seeks permanent naval and air bases in the area. Thus upon annexing Crimea, Moscow immediately accelerated the pre-existing large-scale modernization of the Black Sea Fleet to augment its overall capabilities, including a renewed permanent Mediterranean Squadron by 2016.⁸⁵ On February 26, 2014, Russian Defense Minister Sergei Shoigu announced progress in talks with eight governments to establish a global network of air bases to extend the reach of Russia's long-range maritime and strategic aviation assets and thus increase Russia's global military presence.⁸⁶

Shoigu stated, "We are working actively with the Seychelles, Singapore, Algeria, Cyprus, Nicaragua, Venezuela, and even in some other countries. We are in talks and close to a result." Shoigu cited Russia's need for refueling bases near the equator and that "It is imperative that our navy has the opportunities for replenishment."⁸⁷

In May 2014, then-Deputy Defense Minister Anatoly Antonov announced that Russia is negotiating to establish support facilities in unspecified Middle Eastern countries, although we can guess that Syria, Cyprus, and Egypt are the most likely ones. By the time of this writing, Russia has acquired bases in Cyprus and Syria and clearly desires access to Alexandria, Egypt. In August 2014, responding to NATO's heightened naval presence in the Black Sea due to the Ukrainian crisis, Shoigu demanded a new naval modernization plan to "improve the operational readiness of Russian naval forces in locations providing the greatest strategic threat."⁸⁸ In June 2014, Russian ships even deployed for the first time west of the Straits of Messina.⁸⁹ These moves show why dominating the Black Sea is critical for Russia's power projection into the Mediterranean and Middle East.⁹⁰

However, the Mediterranean Squadron may be as much a response to previously declining NATO deployments that created a strategic vacuum there, as it is a conscious strategy.⁹¹ Since 2014, Moscow has moved to reinforce the Black Sea Fleet to use it as a platform for denying NATO access to it, Ukraine, Russia, and the Caucasus and to serve as a platform for power projection into the Mediterranean and Middle East.⁹² Since the intervention in Syria, Moscow has started to fortify the missile, air defense, and submarine component of its Mediterranean *Eskadra* (Squadron) to impart

to it a capability for denying the area and access to it by NATO fleets in the Mediterranean. Indeed, recent reports show that the Russian fleet in Syria is busily constructing A2/AD capabilities such as land and sea-based air defenses against NATO and other foreign militaries in the Eastern Mediterranean. Thus, we see a clear sea and air denial strategy against NATO and other fleets in the area just as in the Black Sea and other maritime theaters.⁹³ By May 2016, U.S. intelligence confirmed that Moscow was building an Army base at Palmyra, Syria.⁹⁴

All these recent moves bespeak an enhancement of Russia's regional power projection and political influence capabilities in the Levant by an order of magnitude. Russia may clearly have had unrealizable ambitions in the Levant before 2015. It also was steadily increasing its presence and its capabilities until an opportunity presented itself to defend its interests and confront its perceived threats. At the same time, Moscow's goals were quite clear. In general terms, Russia's foreign policy goals by that point had achieved the following.

- Restored the perception that Russia is a true great power that can and will: block American initiatives, power, and values; prevent Washington from unilaterally consolidating any regional geopolitical order; and, force it to engage Moscow's interests through the use of its veto power in the UN on U.S. policies.
- Gained status in Arab eyes of a great power, thus demonstrating to all foreign and domestic audiences its inherent and unconstrained ability to conduct a truly "independent" great power policy without Washington's approval.⁹⁵
- Presented a credible and vigorous alternative to Washington; Moscow aims to create a bloc of

states aligned to it that opposes U.S. positions on the Middle East. In particular, it is attempting to create such a bloc with Iran, the Iraqi Government, and Assad's Syria. This amounts to a pro-Shiite bloc against Sunni fundamentalism embodied by Saudi Arabia. Arguably, it is no accident that this grouping exactly resembles the Rejectionist Front of the late 1970s and 1980s that opposed the Camp David treaty and U.S. policy in the Middle East. The ultimate point here is forcing the United States to act with Russia in the Middle East and not unilaterally, or in other terms, to obtain not just equal standing with Washington, but the ability to block its penchant for unilateral moves and establish a kind of condominium or concert of powers over future regional developments at Washington's expense. As Foreign Minister Lavrov recently observed, "the Americans understand they can do nothing without Russia. They can no longer solve serious problems on their own."⁹⁶ In other words, Syria is merely one such example by which Moscow hopes to force Washington to treat it as a global equal.

- Parlayed its status in Syria into a demand for equality and standing in an international Russo-American anti-Islamic State in Iraq and Syria (ISIS) or anti-terrorist coalition that will also induce the West to become "more reasonable" regarding Ukraine and Russian interests in Europe and Eurasia.
- Demonstrated at home and abroad its reliability as an ally and staunch resolve to fight terrorism while simultaneously posing as an exemplar of inter-civilizational understanding and the only true exemplar of universal religious values.

- Obtained, through energy and arms deals, as well as the judicious display of force and sustained diplomacy, enduring leverage within, if not over, these and other regional governments that gives it a permanent base of influence upon their policies, and thereby eroded the credibility of the U.S. alliance system in the Middle East.
- Preserved Assad, or more likely his government's power over significant areas of Syria, if not the entire state, but maintained it in a "federalized" state to prevent future uprisings and ensure the predominance or at least the "blocking presence" of pro-Moscow elements like Assad's followers and the Syrian Kurds (Democratic Union Party or PYD). Thus, the state will always be pro-Russian or at least susceptible to pro-Russian lobbies and unable to get out of that situation.
- Humiliated Turkey and its plans to oust Assad and demonstrated to Turkey that it cannot impose its will in Syria (or for that matter anywhere else) against Russian interests. This would force Turkey to continue to conform to a pro-Russian policy that, in fact, curtails Turkey's large geopolitical ambitions and reaffirms its energy, economic, and hence strategic dependence upon or constraint by Russia—and not only in the Middle East.
- Enhanced the regime's domestic standing as a successful exponent of Russia's great power interests and resolution in fighting terrorism, while not letting itself be perceived as an enemy of Islam—a major consideration given its growing and large Muslim minority.

- Secured long-term and large benefits for its energy and defense industrial sectors by gaining a permanent place in Syria and other Middle Eastern economies and states that will then rebound to Moscow's lasting leverage over their future policies.⁹⁷

Since 2011, Russia's capabilities to realize these ambitions and enforce them upon other parties have grown particularly as U.S. policy collapsed into strategic incoherence. The growth of these primarily military capabilities emerged in Ukraine and now in Syria and explains why Putin has been able, until now, to conduct his clinic on Clausewitz that too many foreign observers still cannot understand.

RUSSIA'S SYRIAN LESSONS

We have already outlined at least two lessons of this campaign that should resonate among Western audiences. Beyond those lessons, we must also postulate a third one: our inability to take seriously either the interests or the possibility of action, even though we had plenty of intelligence signals highlights from the first lesson of this campaign. That is fundamentally an ongoing strategic failing on our part. This author (if not others) has repeatedly encountered numerous cases where civilian and military leaders as well as operators, analysts, and soldiers have failed to recognize Russian thinking; strategy; and tactics, techniques, and procedures (TTPs). Those are failures more of strategy and political will that must be addressed now before another crisis, which is all too likely, breaks out and we are once again caught short. This also means investing the time and resources, including manpower, to learn

how to think as Russians do—and the record here is discouraging, to say the least.

Because Russia and the problems it poses will not magically disappear and because the Obama and Trump administrations' understanding has been so defective, it is necessary to galvanize support so a substantial effort can be made to develop our human, material, and institutional capacities as quickly as possible without sacrificing our understanding of other potential threats and, indeed, improve that capability as well. A major part of this challenge, therefore, is to grasp the lessons beyond this strategic failure of Moscow's Syrian campaign.

In this context, the first military lesson and the fourth in general from Moscow's Syrian campaign up to this point is precisely the fact that Moscow has been able to sustain this operation at a tolerable cost for over 18 months as of this writing. This completely confounded the Obama administration's excessively rosy scenarios and betrayed its ongoing ignorance of Russian interests and capabilities.⁹⁸ Moreover, Moscow has been able to do so, garnering the benefits of a successful strategy and plan of operations in difficult circumstances (where we have consistently failed to do so). This suggests major progress by Russia toward reconciling the competing demands of retaining a robust national mobilization capacity as it now does with the use of its forces for limited wars that do not require actual mobilization.⁹⁹ This starkly contrasts with our failure to advance our strategic aims through 2016 beyond degrading ISIS's capability.

Even though Moscow has had to reflag Turkish ships, obtain aerial overflight permission from Iran and Iraq, and depend upon the Straits being kept open, it has proven not only that it can project and, no

less importantly, sustain military power in the Middle East, but it also defied many analyses by Western pundits and policymakers that it could not do so. In itself, this fact validates the successes of many of the post-2008 military reforms: the emphasis on combined arms operations and on much more systematic and realistic training; the creation of a national command and control center; the improvement of Russian weapons; the improvement of Russian command, control, communications, and intelligence (C3I); and, the improvement of Russian forces.¹⁰⁰

Moreover, it is not just that Moscow can project and sustain power hundreds of miles beyond its borders, but that it also can conduct the combined sea, air, C3I, and electronic warfare (EW) operations needed to do so successfully. This newly enhanced capability for combined arms operations was not previously present and its advent placed profound difficulties in the way of Western force that will have to defend NATO or other places against potential Russian challenges. Thus, we not only see new weapons capabilities (e.g., the Kalibr cruise missile), but new force packages and concepts that had hitherto been missing (e.g., the use of sea and air and lift assets operating both inside and outside of Russia to facilitate a massive sea and air lift and a subsequent ground operation with allied non-Russian forces). These kinds of manifestations testify to the greatly enhanced capacity of Russian leaders not only to deploy and use forces but also to make rapid tactical adjustments to mistakes or unforeseen contingencies in the theater, and thus improve their operational performance to achieve preselected strategic objectives. One alarming byproduct of this display is that Syria has provided Russia with opportunities for using nuclear capable ordnance like the Kalibr cruise missile

or the nuclear capable KH-1012 cruise missile as a sea-launched cruise missile (SLCM) – in other words, blurring the difference between nuclear and non-nuclear weapons.¹⁰¹ This particular trend raises many disturbing questions of strategy, operations, and policies for the future, given the centrality of deterrence to Western strategy and the opacity surrounding Russian nuclear weapons doctrine, strategy, and policies.¹⁰²

The implications of the use of such weapons does not stop here. In 2008, Mark Schneider explored Russian nuclear policy and doctrine and discovered that a decade-long Russian series of policy statements concerning first use of nuclear weapons was due to more than Russia's conventional inferiority vis-à-vis NATO. Quoting Russian defense correspondent Pavel Felgenhauer and others, Schneider concluded that:

The hidden agenda behind the new Russian nuclear doctrine, as Felgenhauer suggested, is not only the desire to deter attack on Russia—which previous nuclear doctrine certainly did—but in addition to this, it seeks to return Russia to superpower status by the threat of precision low-yield nuclear strikes. The new weapons are not only aimed at merely deterring attack on Russia (they can be used for this purpose by reprogramming them to generate megaton yields), but to allow Russia to threaten to intervene in the next Kosovo or Iraq or the next crisis du jour once the Russian economy revives sufficiently to support a more activist role.¹⁰³

This is a fifth lesson from Syria. Syria is the next Kosovo or Iraq, and we need to understand that regarding such conflicts where Russia may be inclined to intervene physically, rather than indirectly, it will use and even demonstrate its nuclear capabilities to deter the West from intervening or from further escalating its initial intervention. We need to understand

that the purpose behind nuclear weapons, or at least one of them, is not the vogue phrase “escalate to de-escalate” that misreads Russian thinking and limits it to the next war with NATO or China. Rather, the purpose of those weapons in our context is to control the entire escalation process of the West and force it to behave according to Russian dictates (i.e., not intervene in areas marked off by Russia as being its vital interests). For Russia, the purpose of its nuclear weapons is to control the entire escalation ladder from start to finish, and not only in conflicts against Russia proper, but wherever Moscow deems it necessary to assert its vital interests. It is a doctrine not for defense and deterrence alone, but for power projection and deterrence as in Syria.

Furthermore, as more evidence is available, it becomes clear that there are resemblances to Ukraine, especially as Russian operations are extended. Russia here, too, has successfully employed not just its regular military forces, but, also, foreign mercenaries from Serbia and/or Bosnia; private military companies; and even Cossack regiments, some of which may have been in combat in Syria since 2013!¹⁰⁴ Thus, Russia’s Syrian campaign would resemble the so-called hybrid war (a bad term, but one that has, nevertheless, entered official currency) we saw in Crimea and Donbass with regard to the deployment of various paramilitary and “unofficial” or auxiliary forces since the employment of such forces is taken to be one of the defining features of “hybrid war.”¹⁰⁵ Moreover, it shows how Putin, like Stalin, has mastered the art of “dosage” by carefully graduating Russian presence stealthily and thus confounding Western intelligence services and governments. To the degree this operation remains successful—and to date it has accomplished virtually

every objective set out for it—it will probably not be the last such effort at Russian power projection even if we cannot now predict where subsequent operations will occur. In other words, despite real limitations, Russia's military reach is no longer necessarily confined to its immediate peripheries and borderlands. Its capacities will likely grow with the eating.

This point is, of course, cold comfort for NATO commanders and leaders since it adds several arrows to Russia's quiver of potential operations for which they must plan, including nuclear ones, given the dual-use capabilities displayed in Syria. Power projection operations closer to home may involve not just the capabilities we saw in Syria, but the use of air assault and airborne forces, a long-time specialty of the house, in tandem with the panoply of both military and non-military missions we have seen in Ukraine and Syria. As new technologies proliferate, we may well see robots, drones, hypersonics, advanced electronic systems, etc., all come into force, since Russia—and by no means is it alone—is working on all those programs. Indeed, there are reports of Russian unmanned aerial vehicles (UAVs) in Syria.¹⁰⁶ Here we cannot overlook the fact that Moscow's weapons have added considerably to their long-range strike capability. The firing of the Kalibr cruise missile from a frigate in the Caspian Sea 900 or more kilometers (km) away from Syria to mark Putin's birthday on October 7, 2015, is not only a homage to the president, but it also demonstrates the potential for combining power projection with long-range strikes from "privileged sanctuaries" inside Russia. Of course, it also highlights potential new missions for Russia's Navy in tandem with air and/or ground forces.

The next locale for Russian military operations beyond Russia's borders currently cannot be predicted. There has been fluctuating but considerable concern in Moscow that in the event of a collapse in Afghanistan, Russia may be called upon to sustain its promises to Central Asian states through the Collective Security Treaty Organization (CSTO).¹⁰⁷ Nevertheless, for very well founded reasons, Moscow clearly is not eager to cash that check even though it knows it might have to do so. Second, we see Russia advancing in the highly unstable Caucasus; it is now incorporating South Ossetia, Georgia, through a plebiscite that at the time of this writing was scheduled to occur in the summer of 2016, thus adding to tensions with Georgia.¹⁰⁸ Alternatively, the recent fighting in Nagorno-Karabakh in the South Caucasus underscores the possibility that Moscow might also have to make good on its promises to Armenia through the CSTO. Of course, Ukraine and other potential European contingencies, by no means only including the Baltic States, are conceivable.

Consequently, it is incumbent upon allied policy-makers, pundits, and others to stop underestimating Russia's capabilities and intentions and to assess them accurately and soberly. This is an admittedly difficult requirement given the inbred opacity of the Russian system, and its emphasis on deception and *Maskirovka* (see next paragraph). This consideration brings us to the sixth and possibly even more crucial military lesson from Russia's Syrian operations.

As a 2016 Atlantic Council report indicates, Moscow's Syrian operation began with and continues to feature an all-pervasive deception strategy.¹⁰⁹ We now know that planning for the Syrian operation began in January 2015 upon the receipt of reports from Iran and the West (and presumably Russian intelligence) that

Assad's regime was in danger of defeat.¹¹⁰ It is probably no accident that Moscow soon negotiated the Minsk II agreement and suspended large-scale fighting in Ukraine, de-escalating that crisis. Russia has never observed any of the agreement's provisions, and dozens of Russian probes continue on a daily basis. By the spring of 2015, large-scale exercises in Southern Russia that looked more and more like a rehearsal for Syria were taking place, although their meaning was clearly not deciphered then.¹¹¹ Russian leaders concurrently shifted their media tone to say that terrorism, and particularly ISIS, were the greatest or most immediate and urgent threat to Russia, a clear shift away from rhetoric implicating NATO and the United States in that dubious honor roll.¹¹² This rhetorical shift not only presaged the intervention in Syria but also prepared domestic opinion in Russia, always a crucial center of gravity of Russian military operations.¹¹³ Yet official documents like the *National Security Strategy of 2015* and the *Maritime Doctrine of 2015* hewed to the old line of NATO and the United States being enemy number one. Then in the summer, Iranian General Suleimani arrived in Moscow to work out the details of the coordinated Russo-Iranian-Syrian-Hezbollah ground, sea, and air attack as Russia was concluding overflight agreements with Iraq and Iran that were by necessity matters of public record and visible signs of airlifting and sealifting military assets to Syria. Throughout all this period and even after the actual intervention, leading Russian officials have continued to claim that their enemy is terrorism and primarily ISIS, although, of course, in their view all opposition to Assad in and of itself is inherently terrorism.¹¹⁴

The point of all this is not that Moscow engages in deception operations. Rather, the point is that Russia

undertakes no military operation without an intrinsic deception or disinformation component. This is more than information warfare (IW) although that (as Moscow defines it) takes place and in some respects overlaps with the deception or *Maskirovka* campaign.¹¹⁵ Rather, every operation contains within it a deception or disinformation component whose purpose is to distract, deceive, mislead, and confuse any and all opponents. In the absence of any countervailing Western information campaign or even willingness to think seriously about Russian operations and objectives, this operation, whose first audience is the Russian people and then foreign audiences, seizes key strategic ground (even if only metaphorically). Only afterwards, when Western governments are alerted to Russia's actual operations, does the deception operation encounter any resistance that may or may not be successful. Nevertheless, throughout the entire campaign, this operation goes on without interruption although it undergoes several manipulations as needed.

In both Ukraine and Syria, we still find too many public elites here and in Europe who, consciously or not, are too willing to repeat parts of Russia's argument because there is no countervailing narrative. Thus, this lesson goes beyond the fact that every strategic operation has embedded within it a deception or disinformation plan or operation, which are part of a larger IW campaign or operation that is also embedded within the overall strategic plan. Moreover, there is no countervailing "noise" from the West because Western governments still seem incapable of understanding that they are being lied to and that they need to fight for the information space during "phase zero," not after the fighting has begun. In a situation where the United States and/or NATO have neither coherent

strategic goals nor awareness, we essentially surrender our capacity to deter or are invariably surprised.

This leads to the seventh and eighth lessons. In Syria as in Ukraine and Georgia, not to mention other operations (e.g., the rise of ISIS and of Chinese military capability), the United States invariably has been surprised.¹¹⁶ Syria, as many commentators now recognize, confirms that Moscow seems to have found a formula by which it can move rapidly and decisively to obtain a lasting, if not decisive, strategic advantage through the use of both force and non-military instruments of power. By doing so, it can achieve complete strategic surprise and much of the standing it needs to enforce a political outcome to the war that inclines toward its agenda and desiderata. This also gets back to our original point about Putin understanding how to wage limited war whereas our leaders do not. Russian military writing has long emphasized the initial period of war as being a decisive one and, in a limited war, if Russia can enforce its information narrative as well as achieve genuine but not excessively threatening strategic objectives vis-à-vis the West through the achievement of total surprise, under such conditions Moscow will likely succeed in retaining those conquests. Stealth, surprise, deception, *Maskirovka*, and IW, to mention only a few elements, are crucial to the attainment of both this surprise and the ensuing commanding strategic position.

In both Syria and Ukraine, as well as Georgia, Russia has consistently held the strategic initiative and driven events while befuddled and distracted. Western governments have continually been forced to play catch up and have found no way to enforce their agenda or objectives, or even to define coherent objectives, the first requirement of strategy. Whatever the

White House may say, we are dancing to Russia's tune (i.e., it still retains the initiative). Whatever term one uses to characterize Russia's current "way of war," it has succeeded thrice since 2008 in allowing Moscow to seize that initiative and impose its conditions on vanquished states at a bearable cost while there has been hardly any Western response, let alone a coherent or effective one. The achievement of strategic surprise through the means discussed previously is a major cause for that state of affairs.

Moreover, it has not been remedied. Continuing Russian aerial provocations against U.S. ships and our allies highlight the absence of sufficient early warning or air defenses in the Baltic. The refusal to put permanent deployments of sufficient size and firepower in countries at risk, like Poland or the Baltic States, to deter Moscow all but ensures that Russia will have the means to attain strategic surprise, if not victory, in the all-important initial period of war. Despite the forces sent since 2016, they still do not have the requisite size to rebuff a Russian offensive, and thus it remains questionable if we are really deterring Moscow at the lowest possible level of a purely conventional operation. The same point holds true for the absence of any kind of information strategy in the United States or NATO. The absence of leadership at places like Radio Free Europe/Radio Liberty and Voice of America, and the torpor that afflicts organizations like the Board of Broadcasting Governors (BBG) underscores a high-level of neglect by the Obama and Trump administrations of basic strategic tools that must be remedied if we are not to face further surprises.¹¹⁷

Moscow's ability to achieve strategic surprise and quickly mobilize a force able to take decisive territory or strategic ground (again metaphorically speaking)

also raises other key points. First, as many have now begun to understand, Russia, under enormous pressure, has had to rethink many, if not all, of the cardinal points of Soviet doctrine and strategy. Particularly due to the traumatic experience of the opening of World War II on Soviet soil, and then due to the advent of nuclear and high-tech weapons, Soviet thinkers placed enormous stress on the importance of the outcome of the initial period of war as well as the period prior to actual combat operations. The rethinking of war that has gone on since 1991 has reconsidered, but not diminished, the importance of those periods but seen them in a completely new light so that Russia, like its Soviet predecessor, still sees itself in perpetual conflict with its interlocutors.

Therefore, it has had to devise both military and non-military instruments (e.g., IW) to be ready for war and to be able to move with alacrity to seize the decisive terrain that affords it a compelling strategic advantage during the initial period of operations. This becomes particularly important if, as in Operation DESERT STORM, that period proceeds uninterrupted into the final operation, making war an essentially uninterrupted sequence quite unlike the past.¹¹⁸ Thus, the whole point of Syria is not to be bogged down in a quagmire as Obama unfortunately predicted, but to achieve victory in limited war terms through decisive force and other instruments as quickly as possible in order to consolidate strategic gains and move to a victorious political outcome. While things may not work out that way, this appears to be what Putin wants, and he has moved relentlessly to achieve that outcome even as he adapts to changing battlefield conditions.

There is also a ninth military lesson to be found here. As we noted and as admitted by key officials,

major strategic developments have consistently surprised the U.S. Government: Georgia, Ukraine, Syria, the rise of ISIS, and Chinese military power. This unbroken skein of intelligence failures also testifies to a massive bipartisan policy failure dating back at least to the George W. Bush administration. Neither has it been acknowledged or corrected. Indeed, high-ranking military officers in Europe have admitted to this author that, when Russia conducts its surprise military exercises, we are completely in the dark.¹¹⁹ In his parting address as Supreme Allied Commander Europe (SACEUR), General Philip Breedlove (U.S. Air Force, Ret.) again emphasized the insufficiency of intelligence assets in the European theater.¹²⁰ Given the Russian emphasis on surprise and the initial period of war, and the fact that exercises have long prefigured Russian future operations and thinking or served as a direct prelude for major operations, this insufficiency in intelligence is a major threat to the security of the United States and our allies.

There are many causes for this state of affairs. One is the generation-long holiday from investing in human capital for Russian specialists that has now been discovered by the press.¹²¹ However, that is not all. Too many people believed the complacent and utterly misinformed line that Russia is simply a declining regional power who is operating out of weakness on the wrong side of history, a country where nothing works, etc. These fables were spun by an administration that, for whatever reason, could not bring itself to take Russia seriously. This strategic failure started with Obama and went down through his administration, which appeared to be addicted to fabricating its own reality and manipulating the media to accept it.¹²² Thus Obama merely mirror imaged our own failures

in the Middle East in the complacent belief that Russia is unable to learn from or exploit our mistakes and is rather doomed to follow them. This mirror imaging and the complacent belief that everyone thinks as we do, and that economics determine politics (a view Lenin would have also uttered though he clearly acted otherwise), was manifest in virtually every official statement from Obama and his subordinates about Russia. It showed the lack of interest in countering Russian military threats and information operations, the inability to think in terms of strategy, and disdain for such manifestations of power politics. It also obstructed the development of intelligence and other experts who could understand that Russia does indeed think otherwise. As *The Economist* reported, "Barrack Obama has blithely regarded Russia as an awkward regional power, prone to post-imperial spasms but essentially declining."¹²³

Indeed, key officials professed disappointment and some surprise. Clearly, Russia rejects Washington's liberal integrationist view of world politics, a stunning display of its tone deafness toward and dismissal of Russia.¹²⁴ In 2009, Deputy Assistant Secretary of Defense Celeste Wallander, now the National Security Council's Director for Russia, stated:

We see our basic approach to Russia is that we see lots of areas where our interests overlap and where it's possible to find cooperation and coordination. We don't accept a zero-sum frame, but this is a frame that everyone keeps trying to force on the United States, that American perspectives on Eurasia, on Europe, on arms control must be zero sums. We don't think they're zero sums. And the same set of rules and norms by which Russia exists in the international community and commands our respect, as it does, apply to Russia's neighbors. And that's really the basic principle, that the United States expects Russia to

abide by the same rules of the game that Russia expects the rest of the international community to approach Russia with.¹²⁵

Unfortunately, Russia insists on precisely this zero-sum view. It also insists that it is not an equal to other powers and demands pre-emptive acquiescence in its status as a condition of doing business with it. Unless one is prepared to formulate viable alternatives, which the Obama administration did not, ignoring these facts and their derivatives all but ensures intelligence and policy failures. Yet it is neither impossible to figure these things out nor to correct these policy mistakes.

This analyst and others made public their finding that Russia would invade the Ukraine if it signed an agreement with the European Union in 2013, and it indeed threatened Kyiv with just such an outcome.¹²⁶ Similarly, many analysts grasped that Russia was planning an invasion of Ukraine in the event of a revolution there by the end of 2013.¹²⁷ Neither is it so difficult to grasp in the light of Russia's previous Middle Eastern policies and its history that, upon seizing the Black Sea as a closed sea, Moscow would then, as it has habitually done since 1770, project military power into the Middle East. These failures are, in a word, inexcusable.

Obama's well-known disdain for power politics and that way of thinking only reinforced the Russian Government's belief that we did not take Russia seriously, were out to undermine it, and yet would do nothing serious about it. The Obama administration's view of Russia as merely an instrumental actor having only regional power capabilities enraged Moscow and inhibited cooperation with it for no discernible gain. Thus Washington, without bothering to think about its policy and the consequences thereof, challenged the

fundamental project of Russian foreign policy whose primary aim is the acknowledgment of its global great power status and its primacy in Eurasia.¹²⁸ However, it does so without any strategic compass as to what it wants other than misplaced rhetoric about being on the right side of history (shades of Vladimir Lenin and Leon Trotsky) and a refusal to accept the enduring reality of power politics. Nor has Washington ever spelled out what it wants to achieve in its policies toward Russia, if there is one other than sound bites and rhetoric.

Accordingly, there is a pervasive disinclination to do the hard work to grasp Russia and invest in understanding it. Consequently, when intelligence analysts are assigned to Russia, they can only think in terms of mirror imaging, rather than in grasping the actualities that drive Russian policy. Thus, intelligence failure and policy failure become mutually reinforcing. When these failures to understand Putin and take Russian power and politics seriously intertwine with the absence of strategy, the results, as in Syria, are devastating to American policy because they undermine both domestic and allied confidence in our leadership, which is what is happening now. Thus, one of the most serious lessons for us in consequence of Russia's operations in Syria is the urgent need to refocus serious attention on Russia and restructure both our intelligence and policymaking systems to prevent being surprised, as we have consistently been for years. In the European theater, this means a much greater effort to send forces that make up a credible land, sea, and air deterrent against Russia beyond the relatively few forces that we have sent to date. Those responses to the Russian threat to Europe are paltry, relative to the

scale of the threat and the capabilities gap that U.S. commanders have cited in the European theater.

Russian operations in Syria also hold other key lessons for us as well. The 10th lesson we can learn from this campaign deals with the nature of this war as seen by Russia and as discernible in its operations. As Russian exercises—which are geared toward theater conventional war—could have told us, Russia has waged a combined arms campaign that includes, as noted earlier, a deception and IW component but which also strategically resembles the Russian approach to counterinsurgency (COIN). This tells us that Russia does not necessarily view COIN as a light forces campaign, but it also should force observers to consider that approach as well as the Anglo-French approach so beloved of analysts and which has had, to be sure, a checkered record.¹²⁹

COIN is an integrated set of political, economic, social, and security measures intended to end and prevent the recurrence of armed violence; create and maintain stable political, economic, and social structures; and resolve the underlying causes of an insurgency in order to establish and sustain the conditions necessary for lasting stability.¹³⁰ The current U.S. Department of Defense (DoD) definition of COIN reads, “Those military, paramilitary, economic, psychological, and civic actions taken by a government to defeat insurgency.”¹³¹

U.S. analysts ignore or overlook the elements of Russian COIN. One analyst derisively described it to this author as “blunt force trauma.” However, this misses the point. Russian history offers a rich palette of strategies, policies, and courses of action available to rulers in conducting COIN operations.¹³² There are clear “constant operating factors” in Russian COIN that began with Ivan III’s takeover of Novgorod in 1478,

after which he promptly deported the entire population. This history reveals ongoing similarities in tactics and strategies (e.g., mass deportations to Siberia, or into serfdom, or, in the case of the Circassians, to Turkey in 1863), up through Stalin's genocidal campaigns to the present Chechen war. Another constant is an apparent lack of accountability and almost certainly a discouragement of small-unit tactical initiative. Russia's traditionally strong hierarchical and tightly controlled military heritage may encourage operational level or strategic independence to some degree, but there are few, if any, signs in the Chechen, North Caucasus, or earlier Afghan campaigns of officers being trained or taught, as are U.S. officers, to seize the tactical initiative. The "strategic corporal" does not exist in Russia's military.¹³³ We also find alternative approaches where deportation was not feasible and where there are varying tactics and strategies.

Indeed, despite enduring constant features and even though we are simplifying drastically for reasons of space, two broad paradigms are discernible in Russia's COIN history. Tsarist, Soviet, and post-Soviet authorities have frequently, though not always, successfully employed these paradigms. To some degree, these paradigms are alternative strategies not usable simultaneously. Often where the first direct and often excessively brutal approach fails, the second, more indirect and socio-politically sophisticated paradigm replaces it. This does not preclude an overlap in the tactics employed in either or both of these paradigms (e.g., deportations and great brutality). Nonetheless, we can analytically distinguish between these two paradigms, especially in the North Caucasus.

The first strategic paradigm is one of brutal suppression entailing a comprehensive direct assault on

the enemy and his society. Examples of this approach abound, such as General Ermolov's brutal assaults on the people and mores of the North Caucasus in 1816-1825 and his successors' similar assaults in the 1830-1850s.¹³⁴ Other examples include the suppression of the Tambov peasant insurgency in 1920-1921 that General Mikhail Tukhachevsky brutally suppressed by force and even using gas attacks on unarmed civilians and insurgents.¹³⁵ Subsequent examples are the collectivization struggle of 1929-1933 where whole communities and peoples were deported or, as in Ukraine and Kazakhstan, subjected to famine, and Stalin's deportations of many nationalities, particularly in the North Caucasus in 1943-1944.¹³⁶ Of course, even in some of these dramas (e.g., collectivization), there were retreats and periods of concessions to the "insurgents." However, in these wars, the brutal direct attack on people and their way of life is quite visible and the primary approach. An ongoing characteristic of this approach is its disdain, contempt for, and ignorance of the native societies that resisted Russian attacks. That could explain why this approach often failed. Nevertheless, in the North Caucasus and Syria, Moscow has relearned and creatively reapplied these tactics.¹³⁷

The second paradigm's cases reflect a more sophisticated understanding and employment of the measures needed to undermine the insurgents' cohesion by splitting the movement and balancing concessions and appeals to indigenous values with repression. This strategy did not only make concessions to enemies' way of life, nationality, and religion, but also it was quite consciously a strategy of imperial management. The goals of this management style were to find those elites who would work with Moscow or St. Petersburg; install them in leadership positions; co-opt them and

their followers into the cosmopolitan Russian ruling elite; make the requisite concessions to the people; and, over the long term, integrate these elites into the Russian state to deprive the population of a leadership stratum that could lead any future revolts. Alternatively, Moscow would designate a favored social category, support them at the expense of less favored groups, and thereby restructure the local society. Throughout the history of successful imperial advances, Russia could rely quite successfully on the elites who form a pro-Russian party amidst targeted territories, peoples, and states.¹³⁸ Combined with overwhelming force and Moscow's ability—a common operational thread in all its ventures—to isolate the theater from foreign support, this blending of force and co-optation generally succeeded, most recently in Chechnya.

This is clearly a long-standing Russian state tradition upon which Putin is still building. Until now, it has succeeded in Syria. In Syria, Moscow did not have to create a state from scratch although it did have to pump in sizable resources to keep it going. Neither did it have to create an army from scratch, although the Syrian Army was visibly demoralized and beaten up from 4 years of fighting. Thus, as in the second, and generally more successful paradigm, Russia has allies in the population, including the state, Army, intelligence services, and non-Sunni minorities who have no illusions as to what awaits them if Assad loses.

Moreover, since these allies wanted to fight with Russia in Syria, Moscow did not have to commit large numbers of ground combat forces, although clearly some were there. It never intended to commit large forces precisely because it always intended to keep this a limited war and to avoid a protracted war with many casualties.¹³⁹ These facts offered Moscow considerable

advantages because it did not have to spend resources on the tasks of state building and party building we saw in Soviet and tsarist COIN operations. Instead, it could send a minimum of forces who were oriented almost exclusively to combat and combat-support operations. In those operations, Russia acted according to its wont with exemplary brutality and indiscriminate targeting of civilians and civilian institutions (e.g., hospitals).¹⁴⁰ At some point, this brutal campaign morphed into something more than traditional tactics, in part dictated by the lack of precision-guided munitions. It had become a deliberate campaign to multiply fear and terror and turn people into refugees, thereby striking at one of Europe's weakest points. In other words, Russia's use of a deliberate strategy had replaced tactics, which was, at least to some degree, rooted in a lack of alternatives.

These COIN operations also show that the "hearts and minds" of most concern to Moscow are those of the Russian audience. Here too, Russia successfully isolated the theater of operations from other foreign influences as well as the Russian audience through techniques that have been regularly tested and employed since 1999. Having allies in Syria among the local state, structures of force, and the population, Russia had no need to engage in such operations as those audiences knew full well what the other side offered them. The Iranians, Kurds, and Hezbollah forces provided much of the requisite muscle. At the same time, clever preemptive diplomacy ensured that outside actors like Israel did not enter the war. Forceful military action has also clearly constrained Saudi Arabia's and Turkey's ability to promote their own candidates, and the timorousness of U.S. policy also contributed greatly to that result. To a considerable degree, Russia, as in

other COIN operations, has successfully insulated the theater against foreign support for its enemies. Since those enemies of Russia were the forces supposedly patronized by Washington, its failure to support its clients has reverberated loudly throughout the Middle East.

Russia's operations also confirm other aspects of Russian policy linked to COIN operations—namely, that Russia, while being a target and victim of terrorism, is also a state sponsor of terrorism. Putin came to power through bombings in Russian cities in 1999 that strongly look like the handiwork of the Federal Security Service (FSB) and which represented (and were so described at the time as) acts of terror against the Russian population in Moscow and other cities.¹⁴¹ The 2006 murder of Alexander Litvinenko in London was hardly the only act of political assassination abroad carried out by Russian agents. Russian agents were permitted by Russian law to conduct such operations abroad and have carried out political “hits” in Doha, and kidnapped soldiers and officials from Ukraine and Estonia. Many political refugees in London also claim to have received death threats. Neither does Russian sponsorship of terrorism abroad stop at political assassinations. In 2008, Viktor Bout, who enjoyed high-level political protection in Moscow, was convicted of running guns to the Revolutionary Armed Forces of Colombia. At the same time, Igor Sechin and Nikolai Patrushev were traveling around Latin America calling openly for an anti-American alliance and intelligence cooperation among friendly pro-Moscow Latin American states, and Moscow was selling Hugo Chávez's Venezuela billions of dollars in weapons.¹⁴²

In the Middle East, Moscow was a major source for the sale of the chemical weapons that Assad (and

his enemies) continue to use in their civil war despite the supposed removal of those weapons in 2013-2014. Moscow also is a major, if not **the** major, purveyor of arms to Hezbollah in Lebanon and supplied them and Hamas weapons through Syria and Iran. Moscow still recognizes Hamas as a legitimately elected government despite its refusal to renounce its calls for the destruction of Israel and continuing terrorist bombings and operations against Israel. Indeed, in 2007, its Ambassador to Israel, Andrei Demidov, stated that it is essential for Israel to talk with Hamas no matter what it does. However, when asked about Russia's refusal to talk with Chechen terrorists, he stated that this is because the Chechen problem is an internal Russian one: "We decide how to settle the problem." Moreover, in complete defiance of the facts, he claimed that Moscow had settled it by peaceful means and created a government, parliament, and judicial system there. He even recommended that Israel learn from Russia in this instance.¹⁴³

Thus, we should not be surprised that Moscow also allowed terrorists to move from Russia to Syria and Iraq so that it could export its terrorist problem abroad.¹⁴⁴ Moscow's conduct in its anti-jihadist COIN in the North Caucasus partakes of the same tactics that terrorists habitually employ. Russian forces operating in the North Caucasus carry out most of the abductions and kidnappings there, evidently with full impunity. Therefore, these kidnappings and abductions essentially amount to state-sponsored terrorism.¹⁴⁵ In Ukraine, it is not only the shooting down of MH-17 that is grounds for labeling Russia a state sponsor of terrorism. Indeed, terrorism has been an important part of Moscow's overall strategy in Ukraine. Russian supported forces have carried out bombings in

Odessa, Kharkiv, and other Ukrainian towns as part of the ongoing effort to destabilize the entire Ukraine.¹⁴⁶

The sum total of all these activities dating back to 1999 and Putin's rise to power show that terrorism is an accepted and habitually employed instrument of Russian power and strategy, and that it is deployed at home and abroad in order to serve state interests. The record also shows that Russia, as befits an outlaw state and state sponsor of terrorism, refuses to accept any legal or moral responsibility or constraints upon its actions and demands that it is free to act with impunity. Nevertheless, we need to study Russian COIN, not because our forces will be allowed to engage in the virtually indiscriminate brutality that characterizes much of Russian strategy, but because we need to relearn the centrality of solidifying public support for our policies, which is essential in a democracy. Moreover, it is equally important not only to recognize domestic public opinion here as a center of gravity, but also to learn the secret of how to co-opt elites who can build a viable state and army that support U.S. interests as well as those of the country in question. Whether it is Vietnam, Iraq, Libya, or Afghanistan, we have been abject failures (going back to Chiang Kai-Shek) at backing candidates who can either build a state, an army, or both, and command public legitimacy in doing so. The tactics of doing so successfully are vital to any COIN effort by anyone and since such wars are almost certain to occur in the future, we need to learn this art now before it is too late.

The 11th lesson pertains to Russian naval strategy. Even for some time after the invasion of Ukraine, there was a tendency to write off or at least denigrate the Russian Navy.¹⁴⁷ Syria shows this to be a mistaken if not misconceived approach. As Thomas Fedyszyn has

written, “The RFN [Russian Navy forces] is now an *ascendant* tool of Russian national power, to be used to spread the message that Russia has returned to the world stage. It will also be the basis of a *combat force* [italics in original].”¹⁴⁸ Indeed, we can see more clearly than before Russia’s evolving naval strategy, and it portends many negative challenges to the West. While the hulls of most ships are still late-Soviet, their interiors have been substantially refurbished with extremely lethal anti-ship and anti-air capabilities to the extent that: 1) they can deny access to Western forces seeking entry into the Black and Baltic Seas or at least severely cripple them;¹⁴⁹ and, 2) they are now able to defend so-called inland seas like the Black Sea and even forward positions in Syria with long-range fire capabilities that are based in those inland seas and that are akin to the bastions of Soviet naval strategy.¹⁵⁰ Third, despite their serious defects which should be neither under or overestimated, Moscow found the means to conduct an unmolested sealift and airlift to Syria—and is now building an A2/AD network in the Eastern Mediterranean to challenge NATO and the United States there. Fourth, U.S. commanders attest to a more aggressive and capable surface and subsurface Russian Navy and to the qualitative improvement of Russian air, sea, and land weapons. This is a trend we saw in Ukraine and that can be counted as a seventh military lesson of this campaign inasmuch as those capabilities are what will confront NATO in a potential European contingency.¹⁵¹

Consequently, this sea denial strategy already manifests the potential to morph relatively seamlessly over time into a reasonably sustainable power projection capability. Moscow continues to seek improvements to its amphibious capabilities as well.¹⁵² As is already the case, Turkey, a NATO ally, is essentially encircled

with powerful fire capabilities deployed throughout the Black Sea, throughout the Caucasus and even the Caspian Sea, and in the Eastern Mediterranean. Given the A2/AD capabilities residing in these forces, NATO's defense of Turkey and the Balkan States has been greatly complicated, to say the least. Moreover, Moscow is moving toward a network of bases throughout the Eastern Mediterranean, and its Mediterranean Squadron is intended to restrict NATO and U.S. forces in the area from proximity to the Straits or from being able to project power unilaterally and in an uncontested fashion into the Middle East, let alone the Black Sea. Thus, Moscow now has bases in Syria and Cyprus; has approached Montenegro and Serbia for naval and land bases, respectively (all the more reason for admitting them into NATO); and is clearly looking to regain access to Alexandria and, if possible, Libyan bases. There are already reports—denied by Egypt—that Moscow is negotiating with Cairo for an air base at Sidi Barrani.¹⁵³ Russia will outfit two *Mistral* warships (purchased by Egypt from France that were originally built for Russia) and will undoubtedly emulate many, if not all, of the advanced capabilities of those ships.¹⁵⁴

This power projection capability has led to enhanced Russian ties with Egypt, Algeria, Israel, Iraq, Iran, and Lebanon, and even efforts to partner with the Saudis in global energy markets even as it maintains its working coalition with Iran. Though that coalition with Iran is by no means an alliance, it functions reliably enough for Russia, given the abiding belief in Russia that it cannot let Iran become a Western partner and must work with it regardless of difficulties.¹⁵⁵

Finally, and 12th, as the foregoing assessment suggests, Russia does not seek or pursue a strategy of direct force-on-force confrontation with the United

States or the NATO Alliance. As innumerable analyses correctly have observed, the military is one of many instruments in what has now (unfortunately) become known as “hybrid war,” a term that has acquired an all but official “good housekeeping seal” from NATO and the United States. Rather, Russia’s Syrian operations have had two effects that undermine our strategy and alliances. Russian operations and deployments, as well as the power projection in Syria, demonstrate that it is of the utmost importance for Russia’s strategic planners to deny the United States any and all opportunities to use its precision strike advantage against Russia or its interests. Whether by power projection, A2/AD networks, lower-level proxy wars, interventions that transform the strategic calculus, or information operations, Moscow has successfully denied the United States the opportunity or option to confront it militarily with its most lethal capabilities. It has deprived our precision and long-range-strike capabilities of much relevance. As a result, our strategy has become disoriented, and our ability to fathom Putin’s motives and future policies has been attenuated.

At the same time, we can see that the effect of Russian strategy has been the fragmenting of American alliances in the Middle East and in Europe. As we have observed, Russia has strengthened ties with almost all of Washington’s allies in the Middle East – almost all of who are quite disenchanted with U.S. policy – and has encircled Turkey, who is apparently intent on isolating itself in any case from the West. Russia now is an essential partner not just in Syria, but also in attempting to resolve any issues of major importance in this region. Foreign Minister Lavrov boasts, “The Americans can do nothing without us.”¹⁵⁶ Meanwhile, the U.S. reputation and cohesion with its allies has visibly

eroded, in no small measure due to the pressures of the lack of a coherent policy and strategy for Syria or the broader Middle East.

At the same time, Moscow's mendacious insistence that it is a necessary and active partner in the global campaign against terrorism, and specifically ISIS, has clearly resonated in Europe among elites in allied capitals.¹⁵⁷ The statements that we cannot solve any major international problem without Russia, or that it is a partner on terrorism and, therefore, our resistance to its aggression in Ukraine should be moderated, can be heard throughout many chancelleries in Europe. It is exactly what Lavrov said, so others are playing to his and Putin's narrative.¹⁵⁸ As this book is going to press, some new developments suggest that events in Syria might be reaching a pivotal moment for Putin and the Russian intervention.

Until now, by his own statements in March 2016, Putin has achieved the objectives that he set out for Russian forces.¹⁵⁹ Washington is negotiating on Russia's agenda; Assad has recovered considerable ground and will be an unmovable force for at least some time to come in Syria; and, Russia has acquired permanent air, land, and naval bases in Syria, as well as potentially lucrative contracts for rebuilding postwar Syria. Moreover, the U.S. alliance network has corroded, while Russia has improved ties with many Arab states and Israel. Russia has also forged a durable if somewhat makeshift coalition with Iran and Iraq in Syria and the broader Middle East. Russian military forces now surround Turkey while more and more Western voices are also saying that we need Russian assistance in any anti-terrorist coalition, a position that Moscow insistently favors. Finally, some of these same European voices clearly link their gravitation to the idea of an

anti-terrorist coalition with Moscow to enhanced pressure on Kyiv to accede to Russian demands regarding the Minsk II accords.¹⁶⁰

Yet, some questions have arisen suggesting that this rosy scenario may be overstated and might yet unravel. Although Putin negotiated a supposed cessation of hostilities with Washington to reduce the fighting and create a limited yet real opportunity for humanitarian relief, Assad's air forces bombed Aleppo in what UN officials call one of the worst episodes of this nightmare war.¹⁶¹ Clearly, he does not feel constrained by whatever Moscow might say or do. Yet, there was no Russian response. Moreover, since then, Russian airplanes used new cluster bombs to provide air cover and firepower to Assad's troops as they advanced in Hama and Latakia provinces.¹⁶² Washington has firmly rejected Moscow's advocacy of coordinated military operations against supposed terrorists not least because Russia has done very little against ISIS and instead concentrated its overwhelming firepower on pro-Western groups who oppose Assad. That refusal for now repudiates a major Russian objective, namely coequal status with the United States in global anti-terrorist operations as a way of breaking its isolation that came about due to the aggression against Ukraine.¹⁶³ Beyond these issues, it appears that Russia's adversaries have somehow obtained anti-air capabilities that they can use against Russia (e.g., in the shooting down of a Mi-28 attack helicopter in April 2016). Finally, ISIS has claimed responsibility for attacks in Jableh and Tartus in the May killing of over 120 people, calling into question the security of Russia's naval and air base in Tartus.¹⁶⁴ Those attacks may also have disabled some Russian helicopters.¹⁶⁵

These more recent events raised serious questions. First, does Moscow really control Assad or can Assad defy Putin with impunity (e.g., in the bombing of Aleppo)? Allegedly, the supposed withdrawal of Russian forces that was more a realignment than a withdrawal was intended as a signal to Assad that he could not count on Russian support to restore his power over all of Syria and forego a negotiated settlement.¹⁶⁶ Yet, that move has not prevented Assad from singlehandedly undermining the cessation of hostilities, nor has it stopped Russia from providing essential military support to his ground offensives without which his forces probably could not move. Therefore, it remains unclear whether Putin can actually control Assad's behavior or whether he even wants to and is merely deceiving the West into thinking that he cannot control Assad and does not support his wider ambitions. This is not an academic issue. If Putin truly wants to preserve cooperation with Washington, he cannot have that outcome and simultaneously ignore Assad's deeds unless Putin is prepared to admit, tacitly or otherwise, that he cannot control his ally. If he cannot control Assad and will not withdraw his troops once Russia's local military power passes its culminating point, he risks being bogged down, as has not yet been the case, in a quagmire of his own making.

The second major question is whether Russia can secure its presence in Syria against ISIS and its other enemies there. If they can penetrate Tartus and shoot down Russian jets that could suggest a revival in some ways of the situation in Afghanistan after 1985 when U.S. Stinger anti-aircraft missiles made it impossible for the USSR to conduct operations with its own forces in Afghanistan. If Russia cannot protect its own forces, let alone its allies, can it afford to stay in Syria or throw

good money after bad to retrieve its present position? If Russia cannot convert the Syrian Army into an effective counterterrorism and COIN force under such circumstances, how long can it sustain what will be an increasingly costly and unpopular intervention abroad?

As of October 2016, we cannot give definitive answers to those questions. It is still clear that Washington has no idea what it is trying to accomplish in Syria or a viable strategy for dealing with Syria or Russia. It also is clear that Putin is continuing to make gains in the Middle East at Washington's expense.

POSTSCRIPT JUNE 2017

As of this writing, Moscow is now approaching a critical decisive moment in Syria. Moscow's efforts to date have been rewarded due to its success in enabling Assad to prevail over the rebels and thereby advance Russian, as well as Iranian, interests along with his own goals.

Nevertheless, it apparently is already visible in Moscow that Russia cannot afford to sustain a long-term military operation in Syria's civil war without the prospect of helping to consolidate a postwar order in Syria where Assad and his party would be the dominant political forces. Economically, the costs will rise over time to a level that is unsustainable for Russia. Indeed, Moscow is already looking for other governments to bear the costs of reconstructing Syria.¹⁶⁷ Second, the costs of continuing to associate itself with Assad, who may fairly be labeled a war criminal for his repeated use of chemical weapons in defiance of the chemical weapons convention to which Syria is a signatory, can only increase Moscow's international

isolation from the West and the United States. The former is its main economic partner, and the latter is its most preferred political interlocutor. In their totality, these economic-political costs are primed to grow, while over time the dividends accruing to Moscow from its intervention will undoubtedly diminish if it cannot bring order to Syria.

In other words, Moscow, like any other foreign intervener in an external civil war, must now convert power into authority (i.e., an order enjoying some form of legitimacy based on reciprocal political understandings among the various players in Syria). This is an abiding dilemma in an insurgency where the victor, be it the insurgents or the government in power, must translate military victory into an effective, legitimate political authority and end the fighting. Russia's efforts to broker a negotiated settlement among all or most of the participants in the war, and its efforts to associate itself with both Iran and Turkey, underscore its awareness that, past a certain point, its interests would no longer be served by continued fighting. This includes the mounting costs of long-term endless intervention, but also its interests would then have been "hijacked" by Assad, if not Tehran as well. The longer fighting continues, the more apparent it is that Assad's survival (personal as well as political) depends on a robust display of Russian military force for an indefinite open-ended commitment that benefits Assad and his masters in Tehran, not Russia. Moreover, Assad's recent use of chemical warfare shows that he intends to remain, as far as possible, independent of Russian control and accept no restraints on his conduct. Indeed, there are many reports of Moscow's fury with him for using those weapons without telling Russia, making Russia complicit in that war crime and thus poisoning

the well regarding Putin's efforts to resume a strategic dialogue with Washington.¹⁶⁸

Thus, Moscow could soon impale itself on the horns of its own victory. At some point, Russian intervention will be serving other actors' interests such as Iran and its clients, Shiite terrorists, and Assad—not Russian interests. Meanwhile, the economic-political costs to Russia will only grow if it cannot control Assad and bring about a legitimate political authority in Syria so that it can consolidate its gains there and elsewhere in the region. Unlike in the past, Moscow, thanks to its success, has developed a real and maybe even vital interest in the future stability of an Assad regime in order to consolidate its gains or cash in its chips. In the past, however, as the British-American historian Niall Ferguson observed, "Russia, thanks to its own extensive energy reserves, is the only power that has no vested interest in stability in the Middle East."¹⁶⁹

In theory, Russia need not irrevocably commit itself to Assad the person, even if it does remain committed over the long run to a version of his state with other leaders and a reconstituted structure that would be guaranteed by all the belligerents as part of an overall peace settlement. That outcome would indeed possess legitimacy and authority and might even demonstrably enhance the security of Syria's people. In fact, until now Putin has stood by Assad and even told him "we will not let you lose."¹⁷⁰ Meanwhile, Assad has repeatedly made it clear that he will accept nothing less than a total reconquest of Syria under his control and, presumably, extirpation of the insurgents.¹⁷¹ Moreover, that is also Iran's long-standing goal, for without a compliant Syria (i.e., Assad in charge of a state that depends on Lebanon and its clients like Hezbollah to stay in power), Iran's power to disrupt the Middle East

dramatically declines along with its power projection capability.¹⁷²

Clearly, Russia has no a priori interest in being the instrument by which Iran destabilizes the entire Middle East by precipitating a war with Israel or perpetuating the Syrian civil war beyond the point where Moscow is fighting for its interests and shouldering an increasing burden whose benefits are diminishing. Nonetheless, if the war goes on interminably, that is what will result for Assad's ability to rule Syria, even with terror bombing and chemical weapons. Reports indicate his usable and reliable forces are down to 18,000 men, and Russian commentary about the quality of the Syrian "army" have been scathing.

So even before the U.S. bombing of Sharyat Air Base on April 6-7, 2017, these factors were already looming before Putin and his government. The U.S. bombing, the exposure of the weakness of Russian air defenses, and the new American demand that Assad must go dramatically exposes the rising costs of the intervention to safeguard Assad. While Moscow continues to deny Assad's use of chemical weapons, makes itself an accessory after the fact to his treaty violations, and must now send more air defenses based on naval assets to Syria, its isolation has grown. Although talks are going on about a Syrian deal with Washington over peace zones and deconfliction of operations against ISIS et al., Washington has essentially told the Kremlin that not only must Assad go, but that if it continues to stand by him, the administration will essentially write off Russia as a partner.¹⁷³ Former Secretary of State Rex Tillerson's depiction of Moscow as "complicit" or "incompetent" to stop Assad's chemical attacks because it is defending Assad's use of chemical weapons suggests that it will be difficult for Russia

to reconcile its desire for strategic dialogue with the United States, which it has long sought with the effort to harvest the gains it has made in Syria and elsewhere in the Middle East.¹⁷⁴ If it abandons Assad, Russia will also have forfeited any chance for real partnership with Iran as well, since Assad is indispensable to Iran's larger regional grand strategy. But since all Washington offers is the possibility of a strategic dialogue and there is no sign of a compromise regarding Syria or Ukraine, it is likely that for now Putin will temporize and persist with the policies that have brought him to the looming impasse he and Russia now face. Thus, Russia will soon confront its decisive moment in the Middle East. However, given the reports that leading members of the foreign policy community believe that trust-building with the West is impossible, we have good reason to fear that Putin may ultimately redouble his bet on Assad and further intensify a situation where nobody, least of all Russia, wins.

CONCLUSION

As of now, operations in Syria represent a successful use of limited military power and forces for the achievement of discrete, visible, and tangible strategic gains. These operations represent another in a series of continuing shocks to the stability of the post-Cold War order and to the idea of international order in general launched by Moscow and other significant strategic actors, none of which have been successfully assessed or resisted. Thus, as the title of this chapter observes, Putin, who is a strategist despite hundreds of misplaced Western analyses and critiques of his supposed failures that do not grasp the meaning of the term "strategist," is still conducting a clinic on Clausewitz for the

benefits of his clearly bemused and disoriented audiences abroad. Despite his country's and government's manifest weaknesses, he, not NATO, is on the offensive. If Syria and the Middle East are quagmires, it is Washington's burden, not Moscow's. This may change if Putin cannot bring about (with his allies' cooperation) a stabilizing process for Syria's reconstruction. Neither stability nor instability can be definitively foretold as the next stage of Syria's nightmare. We need to grasp these facts and react accordingly so as to prevent there being a "next time," for that is the inevitable logic of Russian national security policy. Therefore, the sooner we understand the lessons of Russian operations in Syria, as well as our own strategic predicament and act to overcome it in a truly strategic and purposeful manner, the better off the United States, our allies, and the peoples of Europe and the Middle East will be. Otherwise, there will be a next time, not only in Syria, for locally unchecked wars and aggressions inevitably to become bigger. By then, it will be too late to say that we should have known better or complain falsely that we were not warned earlier.

ENDNOTES - CHAPTER 11

1. Carol R. Saivetz, "Putin's Pullout: A Failing Public Relations Campaign," *Lawfare*, May 8, 2016, available from <https://www.lawfareblog.com/putins-pullout-failing-public-relations-campaign>; Michael Pearson, "Russia to Withdraw Forces from Syria," *CNN*, March 15, 2016, available from <http://www.cnn.com/2016/03/14/world/russia-syria-withdrawal/index.html>.

2. Alexey Khlebnikov, "Russia's Syria Withdrawal: Wrapping Up the Kremlin's Military Campaign," *Russia Direct*, March 15, 2016, available from <http://www.russia-direct.org/opinion/russias-syria-withdrawal-wrapping-kremlins-military-campaign>.

3. Thomas Gibbons-Neff, "Despite Supposed Withdrawal, Russia Building Up New Base in Syria, Pentagon Says," *The Washington Post*, May 18, 2016, available from <https://www.washingtonpost.com/news/checkpoint/wp/2016/05/18/despite-supposed-withdrawal-russia-building-up-new-base-in-syria-pentagon-says>.

4. "Press Conference by the President," Washington, DC: The White House, October 2, 2015, available from <https://www.whitehouse.gov/the-press-office/2015/10/02/press-conference-president>.

5. Fiona Hill, "Putin: The One-Man Show the West Doesn't Understand," *Bulletin of the Atomic Scientists*, Vol. LXXII, No. 3, 2016, p. 141; Fiona Hill and Clifford G. Gaddy, *Mr. Putin: Operative in the Kremlin*, Rev. and Expanded Ed., Washington, DC: Brookings Institute Press, 2015, pp. 331-360.

6. Anthony Cordesman, "The Islamic State War: No Clear U.S. Strategy," Washington, DC: Center for Strategic and International Studies, November 10, 2014, available from <https://www.csis.org/analysis/islamic-state-war-no-clear-us-strategy>.

7. "Press Conference by the President."

8. Samuel Charap, "Russia's Use of Military Force as a Foreign Policy Tool: Is There a Logic?" PONARS Eurasia Policy Memo, No. 443, October 2016, available from http://www.ponarseurasia.org/sites/default/files/policy-memos-pdf/Pepm443_Charap_Oct2016_4.pdf.

9. Rajan Menon, "Putin's Rational Choices," *Foreign Affairs*, February 29, 2016, available from <https://www.foreignaffairs.com/articles/russian-federation/2016-02-29/putins-rational-choices>.

10. Moscow, Ministry of Defence of the Russian Federation, in Russian, December 10, 2014, Foreign Broadcast Information Service-Central Eurasia (FBIS-SOV), December 16, 2014.

11. "Russia Seizes Initiative in International Involvement in Syrian Conflict," Reuters, September 28, 2015.

12. Anna Borshchevskaya, *Russia in the Middle East: Motives, Consequences, Prospects*, Washington, DC: Institute for Near East Policy, 2016, p. 17.

13. E. Wayne Merry, "The Origins of Russia's War in Ukraine: The Clash of Russian and European 'Civilizational choices' for Ukraine," in Elizabeth A. Wood, William E. Pomeranz, E. Wayne Merry, and Maxim Trudolyubov, eds., *Roots of Russia's War in Ukraine*, New York and Washington, DC: Woodrow Wilson Center Press, 2015, pp. 27-50.

14. John W. Parker, *Understanding Putin Through a Middle Eastern Looking Glass*, Washington, DC: Institute for National Strategic Studies, National Defense University, 2015.

15. Pavel Baev, "Russia as Opportunist or Spoiler in the Middle East?" *The International Spectator*, Vol. XLIX, No. 2, 2015, pp. 8-21.

16. Parker.

17. Ibid.; "Suleimani Goes to Moscow," IranTruth, August 7, 2015, available from <http://irantruth.org/suleimani-goes-to-moscow/>; Nikolay Kozhanov, "Understanding the Revitalization of Russian-Iranian Relations," Moscow, Russia: Carnegie Moscow Center, May 2015, available from http://carnegieendowment.org/files/CP_Kozhanov_web_Eng.pdf; Walter Russell Mead, "Is Assad On His Way Out?" *The American Interest*, April 26, 2015, available from <http://www.the-american-interest.com/2015/04/26/is-assad-on-his-way-out/>; Josef Olmert, "Assad Is Losing and Iran as Well – It Can Be Dangerous," *Huffington Post*, May 1, 2015, updated June 30, 2015, available from https://www.huffingtonpost.com/dr-josef-olmert/assad-is-losing-and-iran-_b_7176248.html.

18. For a view of Putin that gets this critical point right, see Hill and Gaddy, pp. 331-360.

19. Baev, pp. 8-21, is also an excellent analyst who similarly overlooked this possibility.

20. Keir Giles, "Continuity and Innovation in Russia's Way of War," lecture delivered at the Center for Strategic and International

Studies, Washington, DC, May 11, 2016, available from <https://www.csis.org/events/continuity-and-innovation-russias-way-war>.

21. Aleksandr Golts, presentation at the conference for the Russian Military in Strategic Perspective, Washington, DC, May 9-10, 2011.

22. Stephen Blank, "A Generation of War," *In Focus*, Fall 2015, pp. 11-13; Gates interview.

23. Hill, p. 141.

24. Samuel Greene, "There May Be a Lot of Reasons Putin Changed Russia's Syria Policy, But Showing Up Obama Is Probably Not One of Them," *The Washington Post*, March 21, 2016, available from <https://www.washingtonpost.com/news/monkey-cage/wp/2016/03/21/there-may-be-a-lot-of-reasons-putin-changed-russias-syria-policy-but-showing-up-obama-is-probably-not-one-of-them/>.

25. Bertrand Russell, *The Practice and Theory of Bolshevism*, London, UK: George Allen & Unwin, 1920, excerpt available from https://en.wikisource.org/wiki/The_Practice_and_Theory_of_Bolshevism/Chapter_II_1.

26. "Interview With Russian Political Analyst Sergey Karaganov: The Four Reasons Why Russia Intervened in Syria," Special Dispatch No. 6335, Washington, DC: The Middle East Media Research Institute, March 2, 2016, available from <https://www.memri.org/reports/interview-russian-political-analyst-sergey-karaganov-four-reasons-why-russia-intervened>.

27. Nadezhda K. Arbatova and Alexander A. Dynkin, "World Order after Ukraine," *Survival*, Vol. LVIII, No. 1, 2016, p. 72.

28. Reid Standish, "Russia Is Using Syria as a Training Ground for Its Revamped Military and Shiny New Toys," *Foreign Policy*, December 9, 2015, available from <https://foreignpolicy.com/2015/12/09/russia-is-using-syria-as-a-training-ground-for-its-revamped-military-and-shiny-new-toys/>; Rowan Scarborough, "Putin Using Syrian Civil War as Testing Ground for New Weapons," *The Washington Times*, February 28, 2016, available from <https://www.washingtontimes.com/news/2016/feb/28/russia-using-syria-as-testing-ground-for-new-weapon/>.

29. Steven Lee Myers and Eric Schmitt, "Russian Military Uses Syria as Proving Ground, and West Takes Notice," *The New York Times*, October 14, 2015, available from http://www.nytimes.com/2015/10/15/world/middleeast/russian-military-uses-syria-as-proving-ground-and-west-takes-notice.html?_r=0.

30. Ibid.

31. Neil MacFarquhar, "Russian Carrier Is Bound for Syria, Flexing Muscle but Risking Malfunction," *The New York Times*, October 21, 2016, available from <https://www.nytimes.com/2016/10/22/world/europe/russia-admiral-kuznetsov-syria.html>.

32. "Russia To Use Combat Experience In Syria To Create New Weapons," *Pravda*, October 6, 2016, available from http://www.pravdareport.com/news/russia/kremlin/06-10-2016/135798-russia_weapons_syria-0/; Mikhail Khodarenok and Maksim Solopov, "Defense Minister: Russian Arms Pass Syria Test, But There Are Problems," UPI, October 24, 2016, available from http://www.upi.com/Business_News/Security-Industry/2016/10/24/Defense-minister-Russian-arms-pass-Syria-test-but-there-are-problems/6631477325682/.

33. Ibid.

34. "Russia, Syria Said Using Migrant Crisis As 'Weapon' Against West," Radio Free Europe/Radio Liberty, March 2, 2016, available from <http://www.rferl.org/articleprintview/27584179.html>.

35. Stephen Blank, "Erdogan: How I Learned to Stop Worrying and Love Russian Encirclement," UkraineAlert, blog of the Atlantic Council, November 1, 2016, available from <http://www.atlanticcouncil.org/blogs/ukrainealert/erdogan-how-i-learned-to-stop-worrying-and-love-russian-encirclement>.

36. Orhan Coskun and Ellen Francis, "Turkey and Russia Have Ceasefire Plan for Syria, Says Ankara," Reuters, December 28, 2016, available from <http://www.reuters.com/article/us-mideast-crisis-syria-idUSKBN14H0WE>.

37. Judah Ari Gross, "Israel's Air Superiority Clouded by New Russian Missiles in Syria," *The Times of Israel*, December 1, 2015, available from <http://www.timesofisrael.com/israels-air-superiority-in-syria-clouded-by-russian-s-400/>.

38. Stephen Blank, "No Need to Threaten Us, We Are Frightened of Ourselves: Russia's Blueprint for a Police State," in Stephen J. Blank and Richard Weitz, eds., *The Russian Military Today and Tomorrow: Essays in Memory of Mary Fitzgerald*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, 2010, pp. 19-150; *Natsional'naya Strategiya Bezopasnosti Rossii, do 2020 Goda (National Security Strategy of Russia to 2020, NBO)*, Moscow, Russia: Security Council of the Russian Federation, May 12, 2009, available from <http://www.scrf.gov.ru>, in English, Open Source Center, FBIS-SOV, May 15, 2009, in a translation from the Security Council website (NSS).

39. *Strategiya Natsional'noi Bezopasnosti Rossiia (National Security Strategy of Russia to 2020, NBO)*, December 31, 2015, available from <http://www.kremlin.ru/acts/bank/40391>.

40. Ibid.; Blank, "No Need to Threaten Us, We Are Frightened of Ourselves," pp. 19-150; Andrew Monaghan, *Defibrillating the Vertikal? Putin and Russian Grand Strategy*, Research Paper, London, UK: Chatham House, Russia and East European Program, 2014; Andrew Monaghan, *Russian State Mobilization: Moving the Country on to a War Footing*, Research Paper, London, UK: Chatham House, Russia and East European Program, 2016, available from <https://www.chathamhouse.org/publication/russian-state-mobilization-moving-country-war-footing>.

41. Edict of the Russian Federation President, "On the Russian Federation's National Security Strategy," December 31, 2015, available from <http://www.ieee.es/Galerias/fichero/OtrasPublicaciones/Internacional/2016/Russian-National-Security-Strategy-31Dec2015.pdf>.

42. "The Foreign Policy Concept of the Russian Federation," July 12, 2008, available from https://russiaeu.ru/userfiles/file/foreign_policy_concept_english.pdf.

43. John Loewenhardt, "Russia and Europe: Growing Apart Together," *Brown Journal of World Affairs*, Vol. VII, No. 1, Winter-Spring 2000, p. 171.

44. Ibid.

45. Luke Chambers, "Authoritarianism and Foreign Policy: The Twin Pillars of Resurgent Russia," *Caucasian Review of International Affairs*, Vol. IV, No. 2, 2010, pp. 119-120.

46. Vitaly Kozyrev, "Russia's Security Policy in Asia in Times of Economic Uncertainty," paper presented to the Annual Meeting of the American Political Science Association, September 2-5, 2010, p. 21.

47. "Concept of Public Security in the Russian Federation," Moscow, Russia: The Kremlin, November 20, 2013, in English, Open Source Center, FBIS-SOV, January 25, 2014.

48. Ibid.

49. Michael Weiss, "Russia's Double Game with Islamic Terror," *The Daily Beast*, August 23, 2015, available from <http://www.thedailybeast.com/articles/2015/08/23/russia-s-playing-a-double-game-with-islamic-terror0.html>; *The North Caucasus Insurgency and Syria: An Exported Jihad?* Brussels, Belgium: International Crisis Group, March 16, 2016, pp. 16-17, available from <https://www.crisisgroup.org/europe-central-asia/caucasus/north-caucasus/north-caucasus-insurgency-and-syria-exported-jihad>.

50. *The North Caucasus Insurgency and Syria*, p. 16.

51. Chambers, p. 113.

52. Ibid., p. 117; Stephen Blank, "The Sacred Monster: Russia as a Foreign Policy Actor," in Stephen J. Blank, ed., *Perspectives on Russian Foreign Policy*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, 2012, pp. 25-194.

53. Moscow, Russia, Interfax, February 24, 2011, FBIS SOV, February 24, 2011.

54. "Medvedev Warns Arabs of 'Extremism'," *Al Jazeera*, February 22, 2011, available from <http://www.aljazeera.com/news/europe/2011/02/2011222142449923896.html>.

55. Dmitri Trenin, *Russia in the Middle East: Moscow's Objectives, Priorities, and Policy Drivers*, Moscow, Russia: Task Force on U.S. Policy Toward Russia, Ukraine, and Eurasia, Carnegie Endowment for International Peace, April 5, 2016, available from

<http://carnegie.ru/2016/04/05/russia-in-middle-east-moscow-s-objectives-priorities-and-policy-drivers-pub-63244>.

56. "Russia's Chechnya, Saudi Arabia Discuss Investments in Region," BBC Monitoring, May 8, 2016; Dmitriy Frolovskiy, "Russia eyes Mideast Foreign Investment Drive," *Trade Arabia*, May 22, 2016.

57. Vladislav Inozemtsev, "The Rationale and Goals of Russia's Syria Policy," in Frederic C. Hof, Vladislav Inozemtsev, Adam Garfinkle, and Dennis Ross, *The Kremlin's Actions in Syria: Origins, Timing, and Prospects*, Washington, DC: Dinu Patriciu Center, Atlantic Council of the United States, 2016, pp. 21-25.

58. *Ibid.*, p. 22.

59. *Ibid.*, pp. 22-23.

60. Adam Garfinkle, "Russian Motives In Syria and the Implications for US Policy," in Frederic C. Hof, Vladislav Inozemtsev, Adam Garfinkle, and Dennis Ross, *The Kremlin's Actions in Syria: Origins, Timing, and Prospects*, Washington, DC: Dinu Patriciu Center, Atlantic Council of the United States, 2016, pp. 34-35.

61. "Syria Asks Russia to Rebuild its Oil Industry," PressTV, May 20, 2016, available from <http://www.presstv.ir/Detail/2016/05/20/466598/Syria-asks-Russia-to-rebuild-its-oil-industry>.

62. Dmitri Trenin, "All Change in the Russian-Western Strategic Climate," Judy Dempsey's Strategic Europe, February 14, 2016, available from <http://carnegieeurope.eu/strategieurope/?fa=62767>.

63. Stephen Blank, "Shrinking Ground: Russia's Decline in Global Arms Sales," Occasional Paper, Washington, DC: The Jamestown Foundation, October 2010.

64. Parker, pp. 25-39.

65. Andrew E. Kramer, "Unrest in Libya and the Middle East Is Costing the Russian Arms Industry," *The New York Times*, March 4, 2011, available from <https://www.nytimes.com/2011/03/05/world/europe/05russia.html>.

66. See the U.S. Embassy cable originally classified by Ambassador William J. Burns, reprinted in "Wikileaks Cablegate: Russian Arms Sales to India," News 18, December 2, 2010, available from <https://www.news18.com/news/india/wikileaks-cablegate-russian-arms-sales-to-india-353569.html>, accessed June 16, 2014.

67. Ibid.

68. Ibid.

69. Alexey Malashenko, *Russia and the Muslim World*, Moscow, Russia: Carnegie Moscow Center, Working Papers, No. 3, 2008, p. 8.

70. Roland Dannreuther, "Russia and the Middle East: a Cold War Paradigm?" *Europe-Asia Studies*, Vol. LXIV, No. 3, 2012, p. 558.

71. Quoted in Gordon G. Chang, "How China and Russia Threaten the World," *Commentary*, June 1, 2007, p. 29.

72. Bulent Aras, "Israel's Strategy in Azerbaijan and Central Asia," *Middle East Policy*, Vol. V, No. 4, 1998, p. 72.

73. Thomas Ambrosio, "Russia's Quest for Multipolarity: A Response to US Foreign Policy in the Post-Cold War Era," *European Security*, Vol. XIX, No. 1, Spring 2006, p. 54.

74. Ibid., p. 59.

75. Alvin Z. Rubinstein, "Moscow and Teheran: The Wary Accommodation," in Alvin Z. Rubinstein and Oles M. Smolansky, eds., *Regional Power Rivalries in the New Eurasia: Russia, Turkey, and Iran*, Armonk, New York: M.E. Sharpe, Incorporated and Company, pp. 31-32.

76. Moscow, *Komsomolskaya Pravda*, in Russian, March 21, 1996, FBIS-SOV-96-056, March 21, 1996, p. 16; *The Jamestown Monitor*, March 14, 1996.

77. Tehran, *IRNA*, in English, March 8, 1995, FBIS-NES-95-045, March 8, 1995, p. 51.

78. Tehran, *Abrar*, in Persian, March 7, 1995, FBIS-NES-95-052, March 17, 1995, pp. 71-72; AFP, Paris, France, in English, March 21, 1995, FBIS-NES-95-056, March 23, 1995, pp. 47-48; Judith Perera, "Russia: Stepping Into the Gulf," *Middle East International*, March 20, 1995, p. 13; Moscow, Interfax, in English, December 5, 1995, FBIS-SOV-95-234, December 6, 1995, p. 25; Stephen Grummon, *Introduction*, "Russian Ambitions in the Persian Gulf," *Middle East Quarterly*, Vol. II, No. 1, March 1995, pp. 87-92; Alexei Vassiliev, *Russian Foreign Policy in the Middle East: From Messianism to Pragmatism*, Reading, UK: Ithaca Press, 1993, p. 360.

79. Tehran, IRNA, in English, May 30, 1995, FBIS-NES-95-104, May 31, 1995, pp. 65-66.

80. Tehran, IRNA, in English, July 20, 1998, FBIS-NES-98-201, July 21, 1998.

81. Emil Aslan Souleimanov, "Mission Accomplished? Russia's Withdrawal from Syria," *Middle East Policy*, 2016, p. 2.

82. Zen Adra, "Putin to Assad: We Won't Let You Lose," *Al-Masdar News*, April 19, 2016, available from <https://www.almasdarnews.com/article/putin-assad-wont-let-lose/>.

83. Daniel White, "Report: Putin Asked Bashar Al-Assad to Resign," *Time*, January 22, 2016, available from <http://time.com/4189997/report-putin-asked-bashar-al-assad-to-resign/>.

84. "95,000 Russian troops in largest military exercise," *Deutsche Welle*, September 14, 2015, available from <http://www.dw.com/en/95000-russian-troops-in-largest-military-exercise/a-18713214>.

85. Stephen Blank, "The Black Sea and Beyond: Naval and Strategic Consequences of Russia's Invasion of Ukraine," *Proceedings*, Vol. 141/10/1,352, October 2015; Moscow, Russia: Interfax, in English, July 27, 2014, FBIS SOV, July 27, 2014.

86. Bruce Jones, "Russia searches for strategic airbase partner," *IHS Jane's Defence Weekly*, March 4, 2014.

87. *Ibid.*

88. Agence France-Presse, "Russian Defense Minister Vows to Strengthen Navy," *Defense News*, August 19, 2014, available from <http://www.defensenews.com>.

89. Moscow, Interfax, in English, June 20, 2014, FBIS SOV, June 20, 2014.

90. Moscow, Interfax, in English, May 20, 2014, FBIS SOV, May 20, 2014; Stephen Blank, "Russian Strategy and Policy in the Middle East," *Israel Journal of Foreign Relations*, Vol. VIII, No. 2, May 2014, pp. 9-25.

91. Thomas R. Fedyszyn, "The Russian Navy 'Rebalances' to the Mediterranean," *Proceedings*, Vol. 139/12/1,330, December 2013, available from <https://www.usni.org/magazines/proceedings/2013-12/russian-navy-rebalances-mediterranean>.

92. Blank, "The Black Sea and Beyond," pp. 36-41.

93. Stephen Blank, "The Meaning of Russia's Naval Deployments in the Mediterranean," *Eurasia Daily Monitor*, Vol. 13, Iss. 4, March 4, 2016, available from <https://jamestown.org/program/the-meaning-of-russias-naval-deployments-in-the-mediterranean/>.

94. Bassem Mroue, Associated Press, "Russia Builds Military Camp near Ancient Site in Palmyra," *Desert News*, May 17, 2016, available from <http://www.deseretnews.com/article/765686533/russia-builds-military-camp-near-ancient-site-in-palmyra>.

95. Sergey Lavrov, "Vneshnopoliticheskaya Samostoyatel'nost' Rossii Bezuslovnyi Imperativ" ("Russia's Foreign Policy Autonomy is an Unconditional Imperative"), *Moskovskiy Novosti*, January 19, 2007.

96. Samia Nakhoul, "Syria's Assad Shows No Willingness to Compromise," *Reuters*, April 8, 2016, available from <http://www.reuters.com/article/us-mideast-crisis-syria-insight-idUSKCN0X5000>.

97. Trenin, *Russia in the Middle East*.

98. Its response to the Russian election hacking campaign is equally indicative of a serious strategic and policy failure.

99. Mikhail Barabanov, "Hard Lessons Learned: "Russian Military Reform up to the Georgian conflict," in Colby Howard and Ruslan Pukhov, eds., *Brothers Armed: Military Aspects of the Crisis in Ukraine*, 2d Ed., Minneapolis, MN: East View Information Services, 2015, p. 79.

100. Johan Norberg, *Training To Fight - Russia's Major Military Exercises 2011-2014*, Stockholm, Sweden: Swedish Defense Research Agency, 2015, available from <https://www.foi.se/report-summary?reportNo=FOI-R--4128--SE>; Roger McDermott, Bertil Nygren, and Carolina Vendil-Pallin, eds., *The Russian Armed Forces in Transition: Economic, Geopolitical and Institutional Uncertainties*, New York: Routledge, 2011; Roger McDermott, *The Reform of Russia's Conventional Armed Forces: Problems, Challenges, & Policy Implications*, Washington, DC: The Jamestown Foundation, 2012.

101. David Axe, "Putin Blasts Syria With New Stealth Missile—and Shows the World He Can Strike From 1,700 Miles Away," *The Daily Beast*, November 19, 2015, available from <http://www.thedailybeast.com/articles/2015/11/19/putin-blasts-syria-with-new-stealth-missile-and-shows-the-world-he-can-strike-from-1-700-miles-away.html>; Pavel Podvig, "Syria strikes, Kalibr-NK, and the INF Treaty," *Russian strategic nuclear forces*, October 7, 2015, available from http://russianforces.org/blog/2015/10/syria_strikes_kalibr-nk_and_th.shtml; Pavel Podvig, "Blurring the Line Between Nuclear and Nonnuclear Weapons: Increasing the Risk of Accidental Nuclear War?" *Bulletin of the Atomic Scientists*, Vol. LXXII, No. 3, April 2016, pp. 145-149.

102. Olga Olikier, *Russia's Nuclear Doctrine: What We Know, What We Don't, and What That Means*, Washington, DC: Center for Strategic and International Studies, May 5, 2016, available from <https://www.csis.org/analysis/russia%E2%80%99s-nuclear-doctrine>; Mark B. Schneider, "Russian Nuclear Weapons Policy and Programs, the European Security Crisis, and the Threat to NATO," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016; Dmitry Dima Adamsky, "The Current State of Russian Strategic Thought in the Nuclear Realm," paper presented to The Russian Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016; James R. Howe, "Future Russian Strategic Nuclear and Non-Nuclear Forces: 2022," paper presented to The Russian

Military in Contemporary Perspective conference, Washington, DC, May 9-10, 2016.

103. Mark Schneider, "The Nuclear Forces and Doctrine of the Russian Federation," *Comparative Strategy*, Vol. XXVII, No. 5, 2008, p. 415.

104. Saivetz; Allison Quinn, "Vladimir Putin Sent Russian Mercenaries to 'Fight in Syria and Ukraine'," *The Telegraph*, March 30, 2016, available from <https://www.telegraph.co.uk/news/2016/03/30/vladimir-putin-sent-russian-mercenaries-to-fight-in-syria-and-uk/>.

105. Williamson Murray and Peter R. Mansoor, eds., *Hybrid Warfare: Fighting Complex Opponents From the Ancient World to the Present*, Cambridge, UK: Cambridge University Press, 2012.

106. Maria Antonova, "What Weapons Is Russia Sending Syria?" *The Times of Israel*, September 26, 2015, available from <https://www.timesofisrael.com/what-weapons-is-russia-sending-syria/>.

107. Younkyoo Kim, Stephen Blank, and Erden Ordabek, "Central Asia and Post-2014 Afghanistan: A New Turn in Russia's Military Policy in Central Asia," *Korean Journal of Defense Analysis*, Vol. XXVII, No. 4, December 2015, pp. 523-537.

108. Lynn Berry, Associated Press, "Putin signs treaty integrating South Ossetia into Russia," *KSL.com*, March 18, 2015, available from <https://www.ksl.com/?nid=235&sid=33874566>.

109. Maksymilian Czuperski, John Herbst, Eliot Higgins, Frederic Hof, and Ben Nimmo, *Distract, Deceive and Destroy: Putin's War in Syria*, Washington, DC: Atlantic Council of the United States, 2016, pp. 6-9.

110. Walter Russell Mead, "Is Assad On His Way Out?" *The American Interest*, April 26, 2015, available from <http://www.the-american-interest.com/2015/04/26/is-assad-on-his-way-out/>; Josef Olmert, "Assad Is Losing and Iran as Well – It Can Be Dangerous," *Huffington Post*, May 1, 2015, updated June 30, 2015.

111. "95,000 Russian troops in largest military exercise," *Deutsche Welle*, September 14, 2015, available from <http://www.dw.com/en/95000-russian-troops-in-largest-military-exercise/a-18713214>.

112. Czuperski et al., pp. 6-9.

113. On the importance of domestic opinion, see Stephen Blank, "Russian Information Warfare as Domestic Counterinsurgency," *American Foreign Policy Interests*, Vol. XXXV, No. 1, 2013, pp. 31-44.

114. Ibid.

115. Timothy L. Thomas, "Russia's Reflexive Control Theory and the Military," *Journal of Slavic Military Studies*, Vol. XVII, No. 2, 2004, pp. 237-256; Timothy L. Thomas, *Cyber Silhouettes: Shadows Over Information Operations*, Ft. Leavenworth, KS: Foreign Military Studies Office, 2005; Timothy L. Thomas, *Information Security Thinking: A Comparison of U.S., Russian, and Chinese Concepts*, Ft. Leavenworth, KS: Foreign Military Studies Office, 2001; Timothy L. Thomas, *Information Warfare in the Second (1999-Present) Chechen War: Motivator for Military Reform?* Ft. Leavenworth, KS: Foreign Military Studies Office, 2002; Timothy L. Thomas, *The Russian View of Information War*, Ft. Leavenworth, KS: Foreign Military Studies Office, 2000; Timothy L. Thomas, *Recasting the Red Star*, Ft. Leavenworth, KS: Foreign Military Studies Office, 2011.

116. Jonathan Karl, "3 Times Obama Administration Was Warned About ISIS Threat," ABC News, September 29, 2014, available from <http://abcnews.go.com/Politics/times-obama-administration-warned-isis-threat/story?id=25843517>; Michael Pillsbury, *The Hundred-Year Marathon: China's Secret Strategy to Replace America as the Global Superpower*, New York: St Martin's Griffin, 2016; Adam Entous, Julian E. Barnes, and Siobhan Gorman, "U.S. Scurries to Shore Up Spying on Russia," *The Wall Street Journal*, March 24, 2014, available from <https://www.wsj.com/articles/u-s-scurries-to-shore-up-spying-on-russia-1395625416>.

117. Anne Applebaum and Edward Lucas, "The Danger of Russian Disinformation," *The Washington Post*, May 6, 2016, available from https://www.washingtonpost.com/opinions/the-danger-of-russian-disinformation/2016/05/06/b31d9718-12d5-11e6-8967-7ac733c56f12_story.html?utm_term=.1e71faf2ce3f; Conversations with members of Voice of America (VOA) and Radio Free Europe/Radio Liberty, 2015-2016.

118. Stephen Blank, *The Soviet Military Views Operation DESERT STORM: A Preliminary Analysis*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, October 1991.

119. Conversations with U.S. Army officers, Germany, July 2015; Julian E. Barnes, "NATO's Breedlove Calls for Sharper Focus on Russia Ahead of Departure," *The Wall Street Journal*, May 1, 2016, available from <http://www.wsj.com/articles/natos-breedlove-calls-for-sharper-focus-on-russia-ahead-of-departure-1462115561>.

120. Ibid.

121. Karoun Demirjian, "Lack of Russia Experts Has Some In U.S. Worried," *The Washington Post*, December 30, 2015, available from <https://www.washingtonpost.com/news/powerpost/wp/2015/12/30/lack-of-russia-experts-has-the-u-s-playing-catch-up/>; Jason Horowitz, "Russia Experts See Thinning Ranks' Effect on U.S. Policy," *The New York Times*, March 6, 2014, available from <http://www.nytimes.com/2014/03/07/world/europe/american-experts-on-russia.html>. This is not only a U.S. problem—see House of Lords, European Union Committee, 6th Report of Session 2014-2015, *The EU and Russia: Before and Beyond the Crisis in Ukraine*, February 20, 2015, available from <http://www.publications.parliament.uk/pa/ld201415/ldselect/ldcom/115/115.pdf>.

122. David Samuels, "Through the Looking Glass with Ben Rhodes," *The New York Times*, May 13, 2016, available from <http://www.nytimes.com/2016/05/12/magazine/through-the-looking-glass-with-ben-rhodes.html>.

123. "The View From the Kremlin: Putin's War on the West," *The Economist*, February 12, 2015, available from <http://www.economist.com/news/leaders/21643189-ukraine-suffers-it-time-recognise-gravity-russian-threatand-counter>.

124. Interview with Celeste Wallander on U.S. Russian Strategy, Warsaw, Poland, March 19, 2015, available from <http://www.gmfus.org/videos/celeste-wallander-us-russian-strategy>.

125. Transcript, "Russia Update: Is the Reset Working?" Washington, DC: Council on Foreign Relations, October 28, 2009, available from <https://www.cfr.org/event/russia-update-reset-working-0>.

126. As told to the author by members of the Ukrainian Verkhovna Rada in October 2013, so it is incomprehensible why the U.S. Government did not grasp this, and were caught by surprise.

127. Entous, Barnes, and Gorman.

128. Katie Zezima, "Obama: Russia is a 'Regional Power.' Nuke in Manhattan is a Bigger Threat," *The Washington Post*, March 25, 2014, available from https://www.washingtonpost.com/news/post-politics/wp/2014/03/25/obama-russia-is-just-a-regional-power-nuke-in-manhattan-is-a-bigger-threat/?utm_term=.e8f90c4f284e.

129. Andrew Mumford, *Puncturing the Counterinsurgency Myth: Britain and Irregular Warfare in the Past, Present, and Future*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, 2011, p. 22.

130. Scott Moore, "The Basics of Counterinsurgency," *Small Wars Journal*, Vol. 8, No. 1, 2011, p. 13.

131. *Ibid.*, pp. 2-3.

132. Stephen Blank, "Russian Counterinsurgencies," in Beatrice Heuser and Eitan Shamir, eds., *National Styles and Strategic Cultures*, Cambridge, UK: Cambridge University Press, 2017, pp. 75-94.

133. Charles C. Krulak, "The Strategic Corporal: Leadership in the Three Block War," *Marines Magazine*, January 1999, available from http://www.au.af.mil/au/awc/awcgate/usmc/strategic_corporal.htm.

134. Moshe Gammer, "Russian Strategies in the Conquest of Chechniia and Daghestan, 1825-1859," in Marie Bennigsen Broxup ed., *The North Caucasus Barrier: The Russian Advance Towards the Muslim World*, New York: St. Martin's Press, 1992, pp. 45-61.

135. See "Usage of poisonous gases in Soviet Russia," topic 1st posted by Sergey, September 18, 2007, "Holocaust & 20th Century War Crimes," Axis History Forum, available from <https://forum.axishistory.com/viewtopic.php?t=127624>; Alexander Statiev, *The Soviet Counterinsurgency in the Western Borderlands*, Cambridge, UK: Cambridge University Press, 2010, p. 17; Alexander S.

Bobkov, "On the Issue of Using Asphyxiating Gas in the Suppression of the Tambov Uprising," *Journal of Slavic Military Studies*, Vol. XXV, No. 1, Winter 2012, pp. 65-104.

136. For recent accounts, see Timothy Snyder, *Bloodlands: Europe between Hitler and Stalin*, New York: Basic Books, 2010; Norman M. Naimark, *Stalin's Genocides*, Princeton, NJ: Princeton University Press, 2010.

137. Alfred J. Rieber, *Stalin and the Struggle for Supremacy in Eurasia*, Cambridge, UK: Cambridge University Press, 2015, p. 242.

138. For example, see John P. LeDonne, *The Grand Strategy of the Russian Empire, 1650-1831*, Oxford, UK: Oxford University Press, 2004.

139. Souleimanov, pp. 1-3.

140. Joanna Paraszczuk, "Russian Raids Said to Deliberately Target Rebel Field Hospitals in Syria," Radio Free Europe/Radio Liberty, October 30, 2015, available from <https://www.rferl.org/a/russian-raids-deliberately-target-syria-rebel-hospitals/27336044.html>; Anne Barnard, "As Bombs Hit Syrian Hospitals, Medical Workers Fear They Are the Target," *The New York Times*, February 25, 2016, available from <https://www.nytimes.com/2016/02/26/world/middleeast/as-bombs-hit-syrian-hospitals-medical-workers-fear-they-are-the-target.html>.

141. John B. Dunlop, "Storm in Moscow: A Plan of the Yeltsin 'Family' to Destabilize Russia," paper presented to the Project on Systemic Change and International Security in Russia and the New States of Eurasia, Johns Hopkins University, Nitze School of Advanced International Studies, Washington, DC, 2004; John B. Dunlop and Amy Knight, *The Moscow Bombings of September 1999: Examinations of Russian Terrorist Attacks at the Onset of Vladimir Putin's Rule (Soviet and Post-Soviet Politics and Society)*, 2d Ed., Stuttgart and Hannover, Germany: Ibidem Press, 2014.

142. Stephen Blank, "Russia in Latin America: Geopolitical Games in the US's Neighborhood," IFRI Paper, *Russie.Nei. Visions*, No. 38, April 2009.

143. Herb Keinon, "Interview with Andrei Demidov," *Jerusalem Post*, February 16, 2007, in English, FBIS-SOV, February 16, 2007.

144. Weiss; International Crisis Group.

145. Valeriy Dzutsev, "Repercussions of Moscow's Expansionist Foreign Policy in North Caucasus," *Central Asia Caucasus Analyst*, September 17, 2014.

146. Chris Dunnett, "What and Who Are Behind Recent Bombings in Ukraine," Hromadske International, February 24, 2015, available from <https://medium.com/@Hromadske/what-and-who-are-behind-recent-bombings-in-ukraine-3e73e3f3d587#.3ikmqul1k>.

147. David Axe, "Russia's Navy: More Rust than Ready," *The Great Debate*, blog of Reuters, May 27, 2014, available from <http://blogs.reuters.com/great-debate/2014/05/27/russias-navy-more-rust-than-ready>.

148. Thomas R. Fedyszyn, "Putin's 'Potemkin-Plus' Navy," *Proceedings*, Vol. 142/5/1,359, May 2016, p. 44, available from <https://www.usni.org/magazines/proceedings/2016-05/putins-potemkin-plus-navy>.

149. Conversations with U.S. Army officers, Germany, July 2015, and with U.S. analysts in Washington, DC, 2015-2016.

150. Andrew Fink, "Russia, Iran, and Inland Seas: A Bastion Strategy for the Second Nuclear Age," *The American Interest*, April 15, 2016, available from <https://www.the-american-interest.com/2016/04/15/russia-iran-and-inland-seas/>.

151. Fedyszyn, "Putin's 'Potemkin-Plus' Navy," pp. 44-45.

152. Jörgen Elfving, "Russian Amphibious Capabilities – Kontraktniki and Rust Buckets (Part One)," *Eurasia Daily Monitor*, Vol. 14, Iss. 67, May 17, 2017, available from <https://jamestown.org/program/russian-amphibious-capabilities-kontraktniki-rust-buckets-part-one/>; Jörgen Elfving, "Russian Amphibious Capabilities – Kontraktniki and Rust Buckets (Part Two)," *Eurasia Daily Monitor*, Vol. 14, Iss. 69, May 22, 2017, available from <https://jamestown.org/program/russian-amphibious-capabilities-kontraktniki-rust-buckets-part-two/>.

153. "Russia In Talks With Egypt To Lease Military Base: Report," *Global Security*, October 10, 2016, available from <https://www.globalsecurity.org/wmd/library/news/russia/2016/russia-161010-presstv03.htm>.

154. "Russia to outfit Egypt's Mistral 'tin can' warships," *RT News*, October 20, 2015, available from <https://www.rt.com/business/319154-russian-helicopters-mistral-egypt/>.

155. Parker.

156. Nakhoul.

157. "Steinmeier Calls for Cooperation with Russia," *UNIAN*, April 22, 2016, available from <http://www.unian.info/world/1326991-steinmeier-calls-for-cooperation-with-russia.html>.

158. *Ibid.*; Nakhoul.

159. Saivetz; Pearson.

160. Pete Baumgartner, "Possible Russia-West Rapprochement over Syria Stokes Fears in Europe's East," *Radio Free Europe/Radio Liberty*, November 19, 2015, available from <http://www.rferl.org/content/russia-west-rapprochement-syria-worries-eastern-europe/27375059.html>.

161. Josie Ensor, "As Bombs Fall, Aleppo Asks: 'Where Are the Americans?'" *The Telegraph*, May 1, 2016, available from <http://www.telegraph.co.uk/news/2016/04/30/thousands-flee-aleppo-under-cover-of-darkness-as-assad-planes-ci/>.

162. Jack Stubbs and Maria Tsvetkova, "Russia's Military Presence in Syria is as 'Powerful' as Ever," *Business Insider*, April 15, 2016, available from <http://www.businessinsider.com/russias-military-presence-in-syria-is-as-strong-as-ever-2016-4>.

163. "US rejects Russia proposal for joint Syria airstrikes," *France 24*, May 20, 2016, available from <http://www.france24.com/en/20160520-us-rejects-russia-proposal-joint-syria-airstrikes>.

164. Cassandra Vinograd, "ISIS Bombing Spree in Tartus, Jableh Kills Scores on Syrian Coast," *NBC News*, May 23, 2016,

available from <http://www.nbcnews.com/storyline/isis-terror/isis-bombing-sprees-tartus-jableh-kills-dozens-syrian-coast-n578536>.

165. "Russian Helicopters Reportedly Destroyed In Attack on Syrian Base," Radio Free Europe/Radio Liberty, May 24, 2016, available from <https://www.rferl.org/a/russia-syria-base-attack-islamic-state/27754608.html>.

166. Saivetz; Khlebnikov.

167. Sara Diamond, "Russia is Pressing International Community to Pay for Syrian Reconstruction," The Media Express, February 26, 2017, available from <https://thediaexpress.com/2017/02/26/russia-is-pressing-international-community-to-pay-for-syrian-reconstruction/>.

168. Laura Rozen, "Russia 'Furious' With Assad Over Gas attack," Al-Monitor, April 10, 2017, available from <https://www.al-monitor.com/pulse/originals/2017/04/russia-us-chemical-weapons-attack-assad-putin-tillerson.html>.

169. Quoted in Chang, p. 29.

170. Adra.

171. Ian Black and Kareem Shaheen, "Syrian president Bashar al-Assad vows to retake whole country," *The Guardian*, February 12, 2016, available from <https://www.theguardian.com/world/2016/feb/12/syrian-president-bashar-al-assad-vows-to-retake-whole-country>.

172. Karim Sadjadpour, "Iran's Unwavering Support to Assad's Syria," republished by Carnegie Endowment for International Peace, August 27, 2013, available from <http://carnegieendowment.org/2013/08/27/iran-s-unwavering-support-to-assad-s-syria-pub-52779>.

173. Laura Rozen, "US, Russia Hold Secret Talks Over South Syria Safe Zone," Al-Monitor, June 1, 2017, available from <http://www.al-monitor.com/pulse/en/originals/2017/06/us-russia-secret-talks-south-syria-safe-zone.html>.

174. Jonathan Karl and Alexander Mallin, "Tillerson: Russia 'complicit' or 'incompetent' with Syria," ABC News, April 7, 2017, available from <http://abcnews.go.com/Politics/tillerson-russia-complicit-incompetent-syria/story?id=46640880>.

CHAPTER 12. RUSSIA'S EXPANDING CYBER ACTIVITIES: EXERTING CIVILIAN CONTROL WHILE ENHANCING MILITARY REFORM

Timothy Thomas

INTRODUCTION

This chapter will detail the explosive growth of cyber issues in general and their impact on Russia's leaders and Russian society/military in particular. For the leadership, cyber issues have resulted in the Kremlin taking efforts to place extensive control mechanisms on the manner in which the Internet can spread information. Russia's leaders view the consequences of cyber's uncontrolled use as a negative. Russia has adapted by changing or altering laws to support their worldview. In the Kremlin's opinion, there is no time to waste in this race to obtain and retain information superiority as new discoveries are being made and means of influence are being identified daily. For a leadership that sees conspiracies all around it, especially those in the form of so-called color revolutions, such a response in the form of extended control over information is expected.

The chapter will also discuss the impact of cyber issues on the military. Russia's Ministry of Defense (MoD) has developed an extensive cyber-based effort to obtain what is known as "military information superiority." This focus is reflected in the multitude of cyber-based devices that have been developed in the past 10 years, from electronic warfare (EW) equipment to hypersonic missiles to what is now termed "killer satellites" and "kamikaze" unmanned aerial vehicles (UAVs). So-called science companies of veterans and

young cyber enthusiasts have been formed to support coding and programming throughout MoD. Robotics are playing an ever-growing role in military thought, to include the use of androids.

This description of both the civilian and military aspects of Russia's cyber effort will be fairly comprehensive. The civilian side begins with a Russian-authored historical summary of a book discussing the country's evolving cyber and information environment. Next, a quick look is taken at Russia's cyber threat considerations and the Kremlin's policy responses, followed by the organizations designated to carry out enforcement, with a particular focus on how the Federal Security Service (FSB) serves as a monitor of compliance and intelligence oversight of the Kremlin's cyber policies. The discussion ends with a look at recent diplomatic treaties, to include the Russian-Chinese cyber agreement.

In the second part of the chapter, military issues are examined. Included is an analysis of cyber-related military reforms (organizations and some equipment), of information's impact on military theorists and leaders discussing future war, the various official documents that have discussed cyber/information issues, and the concept of cyber/information deterrence.

What is clear is that Russia continues its efforts to control its domestic and international cyber and information environments. Some of these efforts are information-technical and some information-psychological, which continues a tradition in Russian thought as to how to subdivide cyber and information issues. In Russia, cyber and information issues can be considered separately (with cyber referring to coding, programming, etc., and information referring to its use as a form of influence in the media) or together (the term informatization, for example, is really referring to

the cyber-enhanced aspect of a piece of equipment—that is, the ability to speed up the use of data). What appears certain is that media-type cyber actions utilize indirect or non-military methods (information-psychological), while cyber support of weaponry increases precision and speed (information-technical). Analysts must consider how, when considered together, these actions affect Russia's consideration of the correlation of forces, the initial period of war, and the forms and methods of applying military power.

PART 1: CIVILIAN CYBER ISSUES

Background

It is clear that the Kremlin is very concerned about the impact of information on society and what it refers to as “color revolutions.” It has witnessed the toppling of governments in Georgia's rose revolution, Ukraine's orange revolution, and Kyrgyzstan's tulip revolution. This worries a Kremlin that is focused on controlling society to prevent chaos in the streets (its words). President Vladimir Putin is even against the work of nongovernmental organizations (NGOs) in his country, as he considers them advocates of free speech and the democratization of societies, concepts that work against Putin's control mechanisms. The Kremlin also worries about losing what it refers to as “cyber sovereignty,” as the Internet is viewed as a way to destabilize states and interfere in a nation's internal affairs. The United States, for its part, continues to work with Russia in line with the joint U.S.-Russian statement on cooperation in confidence building resulting from a meeting in June 2013.

Russia has put in place a series of control measures that help ensure regime stability. Its top cybersecurity firm, Kaspersky Lab, signed a deal in December 2015 with the China Cyber Security Company, described in China as a strategic partnership that will work more closely in policing their cyberspace.¹

Internal control in Russia extends to the web activities of civil servants and to other employees as well. Only Russian based Internet providers should be used at work. The Russian company Infowatch reportedly has developed a system that allows employers to intercept and analyze mobile conversations of their employees.² Thus, the system of control is expanding.

An Important Book on Digital Issues

In 2015, two Russian authors, Andrei Soldatov and Irina Borogan, wrote a book titled *The Red Web: The Struggle between Russia's Digital Dictators and the New Online Revolutionaries*. It offers an excellent summary and background on the development of Russian information and cyber issues over the past century. The authors, who have their own website, note that the book is an investigation into what happened in their country when two forces, surveillance and control on one side and freedom on the other, collided over digital issues.³ *The Red Web* demonstrates how a combination of surveillance, control, mobilization, information, and manipulation are integrated to the benefit of the Kremlin.

Of course, the control of information is not a new phenomenon in Russia. The authors go back to the days of Lenin to explain his successful management of newspapers to organize and mobilize the masses, not inform them, thereby preventing the population from

obtaining an alternative worldview. For this reason, in the days of the Soviet Union, dissidents relied on *Samizdat* (self-published material) to obtain such viewpoints.⁴ Today, control over information has become especially critical for Russia and Putin, since he believes the United States has the technology to enable it to topple political regimes,⁵ and that Russia might be next on America's list.

On Control

Control over information did not end with the collapse of the Mikhail Gorbachev era, but it was not always the Kremlin that was in command of it. In the mid-1990s, Russian oligarchs used news media as weapons to fight for control of the vast resources that Russia possessed. They bought and sold media empires. When the first search engine appeared along with the Internet service provider Cityline and the first blog, the Evening Internet, it became frighteningly clear to the security services that such sources of information had to be controlled.⁶ The oligarchs were controlling more information than the Kremlin, and people were accessing information outside the Kremlin's comfort zone.

In 1998, Russia's FSB produced a draft document that made Russia's Internet Service Providers (ISPs) install black boxes on their lines, thereby connecting the ISP with the FSB. The black box system, which furthered control over information, was known as the System of Operative Search Measures (SORM), and it became a technical means to investigate electronic networks, or to conduct eavesdropping on the Internet. It was not even mandatory for the FSB to show a warrant to anyone when it made inspections. The ISP

owners were forced to pay for the black box and its installation, yet they had no access to it.⁷ There reportedly have been three levels of SORM over time. Soviet intelligence service (KGB) telephone tapping was dubbed SORM-1; Internet tapping, to include Skype, was dubbed SORM-2; SORM-3 included tapping all telecommunications.⁸

In 2008, Russian authorities began to worry over other issues such as search engine Yandex, which began to replace newspapers in popularity in Russia. Yandex offered on its home page five top news items, which attracted younger audiences in particular. It soon became the ninth-largest search engine in the world.⁹ Yandex made the Kremlin realize that it would need to control not only Russian media but also the wider Russian-speaking Internet. It especially wanted access to glean how Yandex algorithms were chosen but was unsuccessful in their attempts to do so in 2008.¹⁰ Eventually, Yandex was put under investigation (for posting news items each day) and was thus deemed a “kind of media.” Forcing Yandex to register as media made the company subject to Russian media legislation and libel law, and thus it could be closed down if the Kremlin so desired.¹¹ Initially, then, it was the oligarchs acquisition of media complexes in a fight to control vast natural resources of Russia and the younger audiences focus on a different type of news, the online service, that caused the Kremlin to react and impose restrictive measures.

The focus on Internet sites became even more intense when the Kremlin began worrying about a so-called color revolution happening in Russia. When the Arab Spring occurred in 2011, FSB Director Alexander Bortnikov suggested that a Western conspiracy was afoot, and that it could be aimed at starting similar

protests in Russia. On June 7, 2012, the Russian State Duma introduced legislation for a nationwide system of filtering on the Internet, including a single register of banned sites (i.e., a blacklist).¹² The blacklist would block Internet protocol addresses, sets of numbers, uniform resource locaters (URLs), or domain names the FSB described as harmful. The Federal Agency for Supervision of Communications (*Roskomnadzor*) maintained the blacklist.¹³ By March 2014, Russia had four official blacklists of banned websites and pages: those deemed extremist; those that included child pornography and suicide or banned drug discussions; copyright problems; and sites blocked because they called for demonstrations not approved by the authorities (and conducted without a court order). An unofficial fifth blacklist was for those sites or groups deemed to be uncooperative.¹⁴ Putin wanted to ensure that the West would never be able to start an uprising like the Arab Spring in Russia. In April 2014, Putin declared that the Internet was a Central Intelligence Agency (CIA) project.¹⁵ Authorities clearly feared the Internet might be used to interfere in internal affairs; undermine sovereignty, national security, territorial integrity, or public safety; or divulge information of a sensitive nature.¹⁶

In May 2014, Putin signed a law to tighten control over online bloggers with more than 3,000 followers. These bloggers had to register with the government, allowing the security services to track them. In May 2015, a new law was enacted that made it possible to block all kinds of sites if they carried information without signed agreements from authors or rights holders. Thus, any hyperlink to any text or page can result in the blocking of a website.¹⁷

Soldatov and Borogan developed a template to understand the Kremlin's approach to media control.

Parliament produces a flow of repressive legislation that exploits cracks in previously published rules and regulations. Hacktivists and trolls attack and harass liberals online, posing as someone other than a Kremlin supporter. Roskomnadzor is granted the power to censor and filter the Internet; Kremlin-affiliated oligarchs bankroll and take over media companies; specific manufacturers are selected to provide surveillance equipment; and, Putin's paranoia of enemies ties these actions together, resulting in threats and intimidation. Putin's system is effective as long as people are certain the Kremlin is in control. This dynamic can be transformed when a crisis occurs and messages are shared in real time.¹⁸

On Snowden

Edward Snowden, the authors Soldatov and Borgan wrote, landed in a country with a miserable human rights record. He appealed to investigative journalists for help, but found out after taking risks "to expose information in the interest of freedom of information" that he had landed in a regime that suppressed information.¹⁹ His disclosures emboldened Russia to exert more control over the Internet. That meant Russian citizens would be forbidden from keeping personal data on foreign servers, and that digital sovereignty for Russia must be provided.²⁰ Digital sovereignty would force Facebook, Twitter, Google and its services, Gmail, and YouTube to be subject to Russian legislation and would allow backdoor access to them for the Russian security services. In 2013, new SORM technical guidelines required phone operators and Internet providers to store information for 12 hours at a time until it could be retrieved by the authorities. Correspondence

through Gmail, Yahoo, and ICQ instant messaging could be intercepted.²¹ In short, everything Snowden hoped for had backfired. He was now a prisoner in a land where Internet freedom was tightly controlled well beyond anything he had imagined.

Conclusion Reached on the Red Web

Thus, in the end, the digital directors of the Kremlin have gotten what they wanted: a re-energized populace sympathetic to Putin's actions and convinced of Western conspiracies to neuter Russia, resulting in an exceptionally high popularity rating for Putin. Meanwhile, small pockets of resistance to this media takeover remain, but their voices are more muted than before. As the authors note, one of the main motivators leading to Russia's extra control over the media was the revelations of Edward Snowden. He justified his actions by the need to defend the Internet from government intrusion, surrendering countless National Security Agency (NSA) secrets in the process, only to be a guest in a regime that has been suppressing freedom of information for years.

CYBER THREAT CONSIDERATIONS AND POLICY RESPONSES

The external threat to Russia was brought home by the data that Edward Snowden provided in 2013. Putin noted in 2014 that cyber espionage is "a direct violation of the state's sovereignty, an infringement on human rights, and an invasion of privacy."²² The same year, he stated that some countries wanted to attain a domineering position in information space. To deter Russia, those nations that "we usually call our colleagues and partners" are using all tools, from

political isolation and economic pressure to full-scale information warfare to do so.²³ Here they can achieve “not just economic, but also military-political goals, and actively apply information systems as a tool of the so-called ‘soft force’ for serving their interests.”²⁴ Protecting Russia’s information space against contemporary threats is a national security priority, he noted. Control and communication systems are exceptionally important for the nation’s defensive capability, as well as its economic and social development.²⁵

Such thinking about the dangers of color revolutions to government systems has definitely spread throughout the security sector in Russia. However, it is not just the West and the United States that worry Putin. Websites that also promote terrorism, extremism, xenophobia, and religious hatred inside the country must be contained in order to protect Russia’s citizens.²⁶

In response to the external and internal dangers that the Kremlin visualizes, a series of policies to confront or neutralize them were discussed over the past 3 or 4 years and only more recently realized. In several instances below, the examples used represent more lengthy write-ups of issues advanced by Soldatov and Borogan in *The Red Web*.

A New Information Security Doctrine Will Look at Threats

As Soldatov and Borogan’s book went to press in early 2015, other important cyber developments were underway that have taken us into 2016. The most significant was probably that, in 2016, a new Information Security Doctrine, the first since 2000, would be published that would contain several threat blocks. In

addition to the new information security doctrine, the press continued to publish cyber issues of all types, to include military and equipment issues, new threats, and so on, all lumped together from September-November 2015:

- September 15: Western Military District communication troops repel a hypothetical enemy cyberattack during joint Russian-Belorussian operational exercise “Union-Shield-2015,” where computer attacks were blocked and backup channels were used—wired, satellite, and radio relay. Special encryption equipment (cryptorouter and anti-virus software) were also used.²⁷
- September 17: Ukraine’s state bodies banned Kaspersky Lab products from their organizations, but Lab products keep working in other market segments of Ukraine.²⁸
- October 21: A Russian report notes that there are no scenarios for disconnecting the Internet inside Russia. Rather, the task is to preserve the Russian segment of the Internet.²⁹
- October 27: U.S. officials claim that Russian submarines may be damaging undersea communication cables; Russia denies this.³⁰
- November 10: A recent Russian military article described design concepts for remote-controlled cyber weapons. It was noted that this type of weaponry also would be effective for deterrence, warning, and pre-emption and retaliation purposes.³¹
- November 20: Russian officials cannot use foreign software next year if a Russian version exists.³²

SECURITY SERVICE AND INTELLIGENCE INVESTIGATIVE OVERSIGHT

To implement many of the policy arrangements below, eight agencies reportedly are permitted to conduct investigative activities in Russia: the Ministry of Internal Affairs (MVD); the FSB; the Federal Protective Service, the Foreign Intelligence Service (SVR, which, of course, investigates activities outside Russia); Customs; the Federal Drug Control Service; the Federal Corrections Service; and the MoD's Intelligence Directorate (GRU). Several of these organizations have expanded their surveillance activities as of 2012. For example, the Federal Corrections Service purchased SORM equipment, which are packages enabling the interception of phone and Internet traffic. The law was expanded to include areas where people did community service for crimes instead of being incarcerated. It is nearly possible to wiretap an entire city.³³ Earlier, the Supreme Court had upheld the Right of the FSB to wiretap oppositionists on the ground of engaging in protest activity.³⁴ Overall, it appears that the goal of increased agency and FSB surveillance of the Internet is designed to highlight pro-Kremlin messaging and limit domestic opposition messaging and thus movements. Finally, in December 2012, Putin tasked the FSB to act systemically and offensively in such directions as providing counterintelligence, protecting strategic infrastructure, and combating economic and cyberspace crime.³⁵

Policy

In early November 2013, the State Duma Security and Anticorruption Committee recommended the adoption of an amendment to an FSB law that would

allow it to conduct police investigations to counter threats to Russia's information security. Earlier such actions were applicable only to state, military, economic, or environmental security threats. The report stated that harmful software, for example, can be used as an information weapon³⁶ that could threaten security. On November 20, the President of Russia's website noted that he approved a concept of public security. One provision noted that public security is increased from improvements in the political, organizational, socio-economic, information, and legal environments, among other measures. Such improvements help counter criminal and other illegal behavior. The means of ensuring public security included hardware, software, linguistic, legal, and organizational resources that collect, process, and transmit information about ways to strengthen public security.³⁷ It is unclear if the change to the FSB law and the concept on public security are related.

In January 2014, a draft of the *Concept of Strategy of Cyber Security of the Russian Federation* was placed on a government website. The goal of the strategy was to provide for the cybersecurity of individuals, organizations, and the state in the Russian Federation by defining a system of priorities and measures in the area of internal and external policies. Section One was devoted to the urgency of developing a strategy to confront emerging cyber threats. Section Two defined terms on which the strategy must be based (information space, information security, cyberspace, and cybersecurity). Section Three examined the place of strategy in the system of existing legislation. It was deemed necessary to remove existing failings, create bases for the process of supporting cybersecurity, systematize the action of interested parties, and formulate a model of cyber-

security threats. Section Four discussed the goals of the strategy. Section Five discussed the principles of the strategy. Section Six discussed the priorities of the strategy in providing for cybersecurity, including developing a national system for protecting against cyber attacks and issuing warnings about them; raising the reliability of critical information's infrastructure; improving measures for providing for the state security of information resources in cyberspace; developing mechanisms for the partnering of the state, business, and civil society in cybersecurity; developing digital literacy of the citizenry; and increasing international cooperation. Section Seven directed activities in support of cybersecurity. Finally, Section Eight discussed the development and acceptance of the strategy.³⁸

Also in early 2014, it was decided to enlist civil society representatives to help. It was announced that the Public Chamber was setting up volunteer online patrols against Internet crime, including extremism, drug sales, the spread of child pornography, etc. Nikolay Svanidze, the director of the Russian State Humanities University Mass Media Institute's journalism department, was a critic of the announcement and noted that the Public Chamber does not have the resources for this kind of work. Even the FSB does not have them.³⁹

In June 2014, the Collective Security Treaty Organization (CSTO) drew up regulations for a center to deter cyber threats.⁴⁰ In August, a law on bloggers, classifying them as mass media, took effect. If a blogger site registers more than 3,000 visits a day, then it should be entered into a special register and allowed to publish advertisements for a fee. Bloggers must check the information they post, comply with election campaign regulations, refrain from disseminating information on

citizens' private lives, and state age limits for users.⁴¹ In September, an FSB Public Council representative stated that the council wants more public action in preventing extremist content from being disseminated via the mass media. The representative added that the council was not calling for censorship but, rather, a reasonable balance between freedom of information and accountability for violating civil rights protected by law.⁴²

These developments appear to have diminished greatly the cyber powers of the MVD, whose role in the past had been to investigate cybercrime, hackers, and so on. However, the MVD is hanging on. In early 2014, it had noted that lone criminals were giving way to more organized criminal groups. Each access to computer data seemed to have the ulterior goal of stealing money.⁴³ As another example of ongoing MVD work, the ministry confirmed that it is searching the Open Russia offices (the political movement founded on the initiative of the former jailed businessman Mikhail Khodorkovsky, a strong Putin opponent) due to information that the group's activists design and store calls for extremist activities. The premises are being searched for other electronic software relevant to the case as well.⁴⁴

In March 2015, then-Deputy Prime Minister Dmitry Rogozin gave instructions to create a cybersecurity council, most likely within the Military-Industrial Commission. The group will include representatives of information security system developers, state users of these systems, legislators, and business community representatives.⁴⁵ Speaking at the meeting were representatives of the FSB, Infowatch Company, the Federal Service for Technical and Export Controls, Rosatom, Russian Railways, the Moscow Engineering and

Physics Institute, and the Russian Center for Policy Studies. The latter's representative, Oleg Demidov, noted that the foundation for Russia's policy in the cybersecurity sphere should rest on the adoption of the law "On the Security of the Russian Federation's Critical Information Structure," which classifies critically important facilities.⁴⁶

Also, in March, a definition was offered for a blogger. A blogger is "an individual who registered an account on a social network or owns an independent blog."⁴⁷ In mid-March 2015, the FSB was said to establish an integrated system to counter cyber threats. The mandate for the system was the text on the FSB website of the "Concept for a State System for the Detection, Prevention, and Management of Computer Attacks on Russia's Information Resources." The system, known as the "National Coordination Center for Computer Incidents," would organize special centers supporting cybersecurity. In addition to the FSB, one other executive agency (which at the time of this writing is not named) would ensure the security of the country's critical information infrastructure. The network of centers would monitor information systems 24 hours a day and respond to cyberattacks. If the threat level of the attack is low, it could be put into the hands of the MVD or some other agency. At the moment, the report notes that, implementing the integration of databases for various agencies is difficult to predict. There is too much competition among the security structures. A recommendation was to develop an analog of the Palantir system used by the CIA, Federal Bureau of Investigation (FBI), and NSA for these purposes.⁴⁸

In April 2015, it was reported that the Advanced Research Foundation was also creating a unified control system to provide for shared use of the Gerbariya

platform, an integrated engineering software platform. *RIA Novosti* was informed that a sample of the Gerbariya would most likely appear by the end of 2016. The hope was that the development would improve the internal interaction among defense industry enterprises and boost their efficiency, since currently information systems “with different architectures which correlate poorly” are used at a single enterprise.⁴⁹ Various products create a need to transfer data from one software environment to another which, more often than not, entails a loss of information and time. The Gerbariya platform will relieve the defense sector from these kinds of difficulties. A single software platform acts as a portal with access to two categories of users: developers and consumers.⁵⁰

In May 2015, the Center for Research in Legitimacy and Political Protest, a pro-Kremlin political center, allegedly developed a computer program that trawls social networks looking for opposition plans to Kremlin activities. Russia feels Twitter, Facebook, LiveJournal, and VKontakte (Russia’s main social network) contain information that it deems extremist. Monitoring social networks would help warn Russian society about cyber activities and threats they represent to the regime.⁵¹ Also in May, Putin signed an edict that establishes a Russian state segment of the Internet, which instructed that all state structures would be connected to it. Termed “Gosnet,” the segment will help counter threats to Russian information security at the government level. The state segment serves as an intermediate link between the ordinary Internet and state entity resources. A backup root server was created and is functioning at the Internet Technical Center. By July 1, 2015, official websites of state entities were to be placed on servers in Russia; information was not available as

to compliance with this. In addition, companies such as Twitter and Facebook must store actions of Russian subscribers on Russian servers as well, by no later than September 1, 2015.⁵²

In July 2015, several cyber actions were addressed in the press. On July 14, Putin stated that he has nothing against voting on the Internet for Russian elections. This would have to be discussed with the Central Electoral Commission and deputies of the State Duma, he added. Having many companies working in the field of electronic data protection shows that Russia has the ability to do this.⁵³ In another cyber item, Putin stated that foreign states are using political tools to hamper Russian information technology firms from entering international markets, even though they state that the market is open and beyond politics.⁵⁴ In a *Moscow Times* article, he was quoted as being in favor of only “minimal” Internet restrictions, noting that “one should not forbid reading, viewing, or listening to something, but we should ourselves promote our position.”⁵⁵ Many in the West realize that promoting Russia’s position has, on numerous occasions, been performed by so-called Internet trolls, usually employed by companies with ties to the Kremlin.

On February 11, 2016, Russia’s Telecommunications and Mass Communications Ministry drafted a bill providing for state control of Internet traffic in Russia. The alleged purpose was to provide security of the Internet in case of an external attack. Kremlin spokesman Dmitry Peskov stated that it would be wrong to take this as full control over the Internet. He explained the bill allows authorities to monitor the use of domain name systems (DNS) and Internet Protocol (IP) addresses, compile IP address registers, and create backup copies of the register of Dutch company RIPE

NCC (which distributes IP addresses among service operators). The bill also provides for state control over traffic exchange points so that only licensed operators could setup international communication channels.⁵⁶ It seems as though this bill would stifle freedom of speech as much as it would be a security measure against external threats.

Russia fears offensive cyber threats in any form and plans to create a cyber deterrent that will equate to the role played by nuclear weapons, according to Russian sources. Russia has world-class hackers, as any foreign country can attest after being hacked repeatedly by such individuals or organizations in Russia. According to sources close to the Russian MoD, as reported by SC Magazine UK, the MoD has budgeted in the range of US\$200 million to US\$250 million (approximately £140 million to £170 million) per year for cyber activities. Plans include the development and delivery of malicious programs that allegedly can destroy the command and control systems or critical infrastructure of potential adversaries, such as a banking system, power supply, or airport data in control towers. The website stated:

[A] spokesman for the Russian Federal Security Service (who requested anonymity) said that the creation of this deterrent system is in response to similar plans announced by the U.S. at the beginning of 2015.⁵⁷

The spokesman added that the United States seems to be pushing an arms race in this area.⁵⁸ The Russian plan appears to be in response to U.S. statements that consider Russia to be among the major threats to U.S. state security in the Internet technology sphere.

According to the same Russian Federal Security Service spokesman, the United States is seen as pushing

an arms race in this area. He notes that the creation and distribution of malicious computer programs is much easier than the creation of an atomic bomb, while attribution is much more difficult.⁵⁹ Valery Yaschenko, first deputy director of the Institute for Information Security Issues of the Moscow State University, stated that developing a cyberspace deterrent would create serious difficulties for Russia, since cyber technologies are not associated with mutual destruction.⁶⁰ Dmitry Mikhailov, then-head of the Center for Cyber Security at the Russian National Research Nuclear University, added, “the most important thing is not related to material assets, but the skillful use of mathematical algorithms. We have a great potential in this area.”⁶¹

INTERNATIONAL AND DIPLOMATIC ISSUES: A CHINA FOCUS

Andrey Krutskikh—a prominent Russian writer on information security issues, member of the Russian Ministry of Foreign Affairs, and now a presidential representative for international cooperation on information security and Foreign Ministry Ambassador-at-Large—noted that Russia has tried to stimulate international discussion of information security issues over the past decade. Two mechanisms that he backs are the code of conduct disseminated on September 12, 2011, at the 66th Session of the United Nations Security Council (UNSC), and the September 21-22, 2011, Convention on International Security, presented in Yekaterinburg, Russia.⁶² On March 30, 2016, he noted that there were cybersecurity consultations planned for mid-April with the United States. Krutskikh believed they should focus on “problems of ensuring international information security in all of its aspects.”⁶³

The following discussion first examines a 2015 directive on information security made exclusively with China. The analysis then compares the information security sections of the 2009 and 2015 *National Security Strategies* of Russia; highlights the objectives of the conferences the Russians held in Garmisch, Germany, on information security issues from 2010-2015; and ends with a UN paper proposed in August 2015.

NATIONAL SECURITY STRATEGY

The strategy of May 2009 listed national security tools as the technologies and also the software, linguistic, legal, and organizational items and telecommunication channels that transmit or receive information on the state of national security.⁶⁴ The concept was divided into The Contemporary World and Russia; Russia's National Interests and Strategic National Priorities; and Organizational, Normative-Legal, and Information Bases for Implementing the Present Strategy. The document either discussed or highlighted the following information issues:

- The global information confrontation;
- The use of information to enhance strategic deterrence;
- The ability of information to present a threat to military security;
- The illegal movement of narcotics and "psychotropic substances;"
- The preservation of information technologies and information focusing on the various issues of society's socio-political and spiritual life;
- The development of information and telecommunications technologies such as computer hardware and electronics;

- The proper use of the information-telecommunication medium; and,
- The implementation of a series of information measures which serve as the basis of this strategy. These measures include harmonizing the national information infrastructure with global information networks and systems, overcoming Russia's technological lag in information science, developing and introducing information security technologies in the state and military administrative systems, increasing the level of protection of corporate and individual information systems, and creating a single information-telecommunications support system for the needs of the national security system.⁶⁵

The document did not address in detail some of the salient concepts, such as how information would be used to enhance strategic deterrence; how information presents a threat to military security; and what the proper use is of the information-telecommunication medium, among other issues.

The *2015 National Security Strategy* used the term "information" 36 times. The term "cyber" does not appear. The main use of "information," it seems, is as an instrument "set in motion in the struggle for influence in the international arena" (along with political and financial-economic instruments). The *Strategy* also noted that the confrontation in the global information arena is "caused by some countries' aspiration to utilize informational and communication technologies to achieve their geopolitical objectives, including by manipulating public awareness and falsifying history." For most Westerners, this appears to be exactly what Russia did in Ukraine, never mentioning Putin's

influence on Yanukovych and striking out on an information campaign that, according to even Russian analysts, surpassed anything seen during the time of the Soviet Union. “Information” is also mentioned as a measure to be implemented in order to help ensure strategic deterrence. The “inadvertent” mention of the Status-6 top-secret torpedo on Russian TV is an example of an information deterrence application. Information associated with extremism or terrorism is taken to be a significant threat to public security, and in order to counter such threats, an information infrastructure must be developed that ensures the public has access to information on issues relating to the sociopolitical, economic, and spiritual life of Russia’s citizens.⁶⁶

Lomonosov Moscow State University Institute of Information Security Conferences in Garmisch, Germany

Ever since 2007, Russia has been hosting an international forum on information technology issues. The yearly event has two parts: a conference in Garmisch and a conference in Moscow (or, as in 2011 and later, in another country). The following list address the topics discussed at these conferences in Garmisch by year.

- 2010: international cooperation, counteracting cyber terrorism, information warfare deterrence, personal data protection, Internet governance mechanisms, and international cooperation in research and development (R&D).
- 2011: concept of the international legal framework to regulate information (cyber) space behavior, defining the source (organizer) of cyber attacks (scientific, technical, and legal), international information security glossary, and

content monitoring and filtering (to include preventing terrorist use of the Internet).

- 2012: classification of threats for UN documents, consideration of cyber espionage and intervention in internal affairs of another country as threats, relations between state responsibility for aggression and the authority for ruling in cyberspace, network sovereignty, types of international documents needed for information security, and the state of international relations regarding legal documents.
- 2013: Workshop Roundtables, as written, were Internet: space of freedom or a new battlefield?; Multi-stakeholder Internet governance model: best practices, problems, solutions; National approaches and policies in cybersecurity; National approaches toward content filtration of the Internet; The best practices of public-private partnership to develop safe Internet legal aspects (sovereignty and non-intervention, state responsibility, law of armed conflict); and, Cyber conflicts: models and deterrence mechanisms.
- 2014: Workshop Roundtables, as written, were Adaptation of international law to conflicts in information space: trends and challenges; Critical infrastructure and information security: challenges and initiatives; International information security research consortium; National approaches and priorities of international information security system development; and, Challenges of international information security in the context of trends and advanced technological development.

- 2015: Proposals on frameworks for the adaptation of international law to conflicts in cyberspace; Improving the information security of critical infrastructures: possible initiatives; Legal and technical aspects of ensuring stability, reliability, and security of the Internet; challenges of countering the threat of the use of social media for interference in the internal affairs of sovereign states; and, national priorities and business approaches in the sphere of international information security development.⁶⁷
- 2016: Interpretation of basic concepts, principles, and norms of the Geneva Conventions with regard to cyberspace; the challenges of nonproliferation and the reduction of the risk of cyber weapons use; challenges of international relation in cyberspace; measures of countering the use of the Internet for recruitment and the advocacy of extremism and terrorism; frameworks and tools of public-private partnership for ensuring information security of critical infrastructures; and, proposals for the draft code of responsible behavior of states in information space.

2015 Directive on a Russian Federation (RF)/People's Republic of China (PRC) Agreement on International Information Security and Other Issues

Directive No. 788-d, dated April 30, 2015, contained 10 articles and an annex. The articles were fundamental concepts, principal threats to information security, principal areas of cooperation, general principles of cooperation, principal forms and mechanisms of cooperation, information protection,

financing, relationships to other treaties, dispute resolution, and concluding provisions. The annex defined 10 terms.⁶⁸ They are information security, infrastructure, area, resources, and protection; critical information infrastructure facilities; computer attack; illegal utilization of information resources; unsanctioned interference with information resources; and threats to information security.⁶⁹ The directive discussed threats to critical information infrastructure facilities, such as networks, finance, power, and so on, and the importance of illegally influencing the creation or processing of information.

Two terms that were defined are worth highlighting—information area and computer attack. An information area is:

the sphere of activity associated with information creation, transformation, transmission, utilization, and storage exerting an influence on, inter alia, individual and social consciousness, information infrastructure [defined as the aggregate of technical facilities and systems for information creation, etc.], and information proper.⁷⁰

An information area concerns itself with both information-technical (infrastructure, transmission, etc.) and information-psychological (individual and social consciousness). An information attack is:

The deliberate use of software (software and hardware) tools to target information systems, information and telecommunications networks, electrical communications networks, and industrial process automated control systems carried out for the purposes of disrupting (halting) their operation and (or) breaching the security of the information being processed by them.⁷¹

Thus an information attack appears focused more on systems than people, although it can, of course, impact them, depending on the type of messages transmitted.

Article Two was of interest as well with regard to information-technical and information-psychological activities. It considered information security threats to be constituted by the utilization of information and communications technologies for carrying out acts of aggression aimed at violating a state's sovereignty, security, and territorial integrity; for inflicting economic and other harm, such as exerting a destructive impact on information infrastructure facilities; for terrorist purposes (to include the propaganda of terrorism); and for perpetrating infringement of the law and crimes, such as illegal access to computer information. Two of the threats are singled out for their focus on influencing the thoughts of Russian and Chinese citizens, utilizing technologies:

To interfere in states' internal affairs, violate public order, inflame interethnic, interracial, and interfaith enemies, propagandize racist and xenophobic ideas and theories giving rise to hatred and discrimination and inciting violence and instability, and also to destabilize the internal political and socioeconomic situation and disrupt the governance of a state.⁷²

To disseminate information harmful to sociopolitical and socioeconomic systems and inimical to the spiritual, moral, and cultural environment of other states.⁷³

Of special interest was that each state "shall not carry out such actions against the other Party and shall assist the other Party in the realization of the said right."⁷⁴ "Such actions" include the right to protect the states' information resources against illegal utilization and

unsanctioned interference, including computer attacks on them. Thus, the directive appeared to address three main areas: technological threats to the sovereignty or internal affairs of a state (especially infrastructure), cooperation among various organizations regarding cyber affairs, and the refusal to carry out cyber attacks against one another.

In another report, Russian media described General Mark Milley's (Chief of Staff of the U.S. Army) comments at the Council on Foreign Relations in New York. Milley stated, according to an Interfax report, that Russian activity included "barrel rolls over aircraft, challenging ships, and submarine and cyber activity." Such aggressive behavior needs to be monitored and confronted, according to Milley.⁷⁵

August 2015 UN Report

In 2015, a UN special report was prepared on norms of state cyber behavior. Russian cyber expert Krutskikh listed six aspects of the report:

1. The report attempts to prevent the military-political use of information and communication technologies;
2. Sides should not accuse one another of cyberattacks;
3. Allegations that states organize and perpetrate cyberattacks must be proven;
4. Information and telecommunication technologies are to be used only for peaceful purposes;
5. Backdoors in information technology products are illegal and malicious; and,
6. It is the sovereign right of states to be in command of information and communication infrastructures in their territories.

The report was submitted to the UN secretary-general who would present it at the 70th session of the UN General Assembly. Russia preferred a legally binding international convention on global cybersecurity under the UN aegis, but Krutskikh noted that his Western partners were not ready for this document.⁷⁶

PART 2: MILITARY-RELATED CYBER AND INFORMATION REFORMS

General Background

In 1947, Mikhail Timofeyevich Kalashnikov developed the AK-47 assault rifle. Today, in the digital age, the Kalashnikov Concern has expanded and now includes developments with other armaments. This is not unusual. Digital age technology is causing changes to many military-industrial corporations and the selection of weapons they produce. The Kalashnikov Concern, like many other enterprises, is populated with excellent software writers and digital experts. They are impressive mathematicians, which has always been a Russian strength. Since software is a key element in much of the new weaponry, such as delivering precision ordinance on targets or enabling the acquisition of commands from faraway places while in flight, the current wave of algorithm writers is now as important as any of the engineers in the military-industrial complex.

There may not be a certain name associated with this digital/cyber expertise as there was with the Kalashnikov, however. Each generation of Russians is producing more adept and informed writers and programmers. Today, Eugene Kaspersky stands above others in Russia as a cyber superstar and

recognized name, but as the age of quantum computing approaches, perhaps, he too will be superseded by another scientist or digital expert.

The continued and even extended use of cyber issues will be a constant focus of attention for Western observers of Russia's military scene. For example, Fyodor Dedus, a Deputy Chairman of the Armed Forces' Military Science Committee, when asked if Russia had made development in the field of cyber weapons, stated, "it probably has." Recent Russian reports of the development of robotics, hypersonic weapons, killer satellites, and kamikaze UAVs indicate that this is indeed the case. Lieutenant General A. V. Kartapolov, head (at that time) of the Russian General Staff's Main Operations Directorate, wrote in a 2015 article for the *Journal of the Academy of Military Science* that indirect war, sometimes associated with peacetime, included the use of cyber attacks by Russia, and that direct actions, more often associated with wartime, included the use of weaponry in combination with "large-scale information effects."⁷⁷

Defense Reforms

Russian theorists and analysts have helped institute a series of reforms in the defense sector over the past several years that focus on the application of information concepts. First, it appears that the MoD closely watched developments in other countries. Now, the ministry has developed both a cyber command and the Advanced Research Foundation, an organization similar in function to the U.S. Defense Advanced Research Projects Agency (DARPA). A lengthy discussion of the pros and cons of the network-centric concept has taken place on the pages of journals such as *Military Thought*.

There have been intense discussions in military journals and publications on the use of precision-guided weapons, UAVs, and command and control issues, along with website and software upgrades. Finally, the Russian leadership is beginning to discuss the development of technologies that use information technology, such as cyber electromagnetic pulse, railguns, lasers, and other technologies. They have studied developments in other countries and are adapting Russian weapons to the changing global environment.

In January 2012, the MoD announced it would be upgrading its website as part of its reform effort. The purpose was to shape a positive attitude toward MoD activities. Information technology experts hoped to get over 10 million persons on the website simultaneously, to get from 1 to 5 million users viewing video relays simultaneously, to get 100,000 users able to work with a search engine and database, and to allow several thousand people to play 3D online games. Viktor Ryasnov, an information technology specialist of the Department for the Development of Information Technology, stated that the new website would assemble network resources currently contained on several sites. For example, the website would allow officers to view the construction and progress being made on their own apartments.⁷⁸ This appears to be a way to strengthen the information-psychological stability of soldiers as well.

Different types of threats have been identified that require defense reforms. Offensive threats include the development and dissemination of malware, the hacking of data processing and transmission systems, and the insertion of false information into key systems. A system can be made to fail by the use of "crooked" technology in one's work; an uncertified device; or,

for instance, the introduction into hardware and software products of components that perform functions not stipulated in the documentation.⁷⁹ Russia should adopt urgent measures to protect its information space, in particular that of the armed forces. To this end, it is proposed that special subunits be incorporated in their structure. Methodologies are needed for assessing the survivability of the information and telecommunications system in conditions of net aggression and for calculating the time-probability characteristics of typical computer attacks.⁸⁰

During the past 2 years at the time of this writing, there have been several very interesting cyber developments for the MoD. In January 2014, the Chief of the General Staff's Eighth Directorate stated that Russia would create a special structure to protect critically important facilities against computer attacks.⁸¹ Later, an article described the Army's creation of cyber subunits. Missions included both defense and offense (mounting attacks). In addition to programmers, the table of organization and equipment would include highly skilled mathematicians, engineers, cryptographers, communications personnel, translators, and other supplementary specialists. This would require a center for cyber defense inside the General Staff and a cyber defense center for each military district and fleet.⁸² To date, however, no corroborating evidence has supported this contention in open source documents, other than the creation of a science company in Tambov dealing with cyber issues, and the desire to create two science companies of programmers that would work at MoD headquarters.

In June 2014, Konstantin Sivkov offered two information-related developments discussed at a conference in Moscow. They were, first, the need to improve

information warfare forces and resources; and second, the introduction of the six technological advances in equipment, which would signal the move to fully intellectual models that implement the concept of “cognicentric” warfare.⁸³

Earlier, in September 2014, due to sanctions imposed on Russia because of its intervention in Ukraine, Putin stated that Russia must make its own software for the defense industry and security agency needs and for civilian communications.⁸⁴ In November, Shoigu reported that Russia’s National Defense Management Center was creating a protected hardware and software suite for consolidating information. To be activated on December 1, the center linked the military high command, Emergencies Ministry, nuclear power agency Rosatom, weather agency Rosgidromet, and other agencies. The hardware and software suite would automatically update information of major importance for the country’s defense. Of interest is that “a system of centers and forces control points has already been set up” for control of defense and the branches and elements of the armed forces.⁸⁵ This makes one believe that Russia is further along in developing its cyber forces than it lets on.

In January 2015, Shoigu stated at the all-Russian press festival, MEDIA-ACE-2015, that a new project was created to help the media strengthen the military’s positive image, and that information threats and the changing forms and methods of armed conflicts must be kept in mind by Army development planners. It is common knowledge that external interference in the affairs of sovereign states has become more frequent; that the Internet and mass media are being used to influence situations more and more; and that reconnaissance, control, and attack means are improving.

This requires Russian troops to be armed with high-tech weapons and hardware.⁸⁶ Information technology supremacy is now a factor of military force.⁸⁷ Shoigu stated that the day has come when “a word, a camera, a photo, the Internet, and information in general have become yet another type of weapon.” This weapon can be an investigator, prosecutor, judge, and executor in bad hands.⁸⁸ A report on the Tambov science company stated that the new subunit would make it possible to boost the efficacy of applied-science research, conduct testing in the EW sphere, train specialists, and would help in developing data protection methods.⁸⁹ This military organization is designed to recruit talented young programmers, and students would be taught how to wage computer wars, erect barriers against Internet attacks, prevent attacks on classified networks, and impede an adversary’s troop command and control and weapon use.⁹⁰

On February 4, 2016, Major General Yury Kuznetsov, head of the Eighth Directorate of the Russian Armed Forces General Staff, stated that there is a need for legal regulation in the cybersecurity area. This is due to the spread of information technologies that make it possible to use modern technologies to destabilize the social situation inside states and exert an information-related influence on the population. He noted that a cyber nonaggression pact, expected to be implemented under the auspices of the UN, “will contain obligations to abide by the principles and the rules of conduct in cyberspace.”⁹¹ The same day, the MoD released a report that noted a command-staff exercise had organized continuous command and control from district headquarters to individual subunits during a hypothetical EW cyberattack from an adversary. Lasting more than a week, the exercise

employed approximately 300 units of communication equipment.⁹²

On February 19, a Russian report discussed automated optical-electronic systems able to work under all conditions. The Fara short-range reconnaissance radar station can detect targets in zero visibility and help direct fire support against them. It is a very mobile system. The optical-electronic Integran (Schemer) system is able to detect, filter out, and identify a large number of targets and can help prevent breakthroughs. The Ironiya (Irony) optical-observation system can receive and process data about an enemy in real time. It consists of a rangefinder with thermal imaging that can detect live targets at distances of up to 3 kilometers (km) and equipment up to 7 km, transferring photos to command and control centers via encrypted communication channels over distances up to 10 km.⁹³ On February 20, Rogozin noted that the defense industry must be independent in its software development for space emergencies, as there is no material base in space. The Sarov Center would lead this effort. He added that the effort to develop national software should prioritize areas such as “defense, space, nuclear power, and the civilian sectors related to dual technologies.”⁹⁴

In March, Defense Minister Shoigu discussed the development of an automated military educational system, an Electronic VUZ, which would provide officers fundamental theoretical knowledge and skills for their duties. A unified information environment would provide the opportunity for self-education. The system would offer the opportunity to disseminate advanced pedagogical and methodological experiences, and include a specialized library information system, along with e-textbooks.⁹⁵ In another March report, this one from the Western Military District, EW specialists

learned how to disable radio-controlled UAVs and cruise missiles. The Leyer-3 EW system enabled the specialists to disable hypothetical enemy UAVs at ranges of over 100 km from the EW unit's location.⁹⁶

In June 2015, a new cadet information technology school to be located in Saint Petersburg was announced. Cadets will study physics, math, and information technology. The school will have a network center, a multimedia apparatus center, a software lab, a robotics lab, and a 3D center.⁹⁷ The science company and cadet school may serve as building blocks for Russian cyber troops. However, there has never been confirmation of where they are located or even if they actually had been developed. In 2013, Shoigu had supported the development of a cyber command authority, but again, even though it may exist, at the time of this writing there has been no official announcement.⁹⁸

Also of interest has been the work of the General Staff's Military-Scientific Committee, whose purpose is to justify scientific work. One site lists several of the research institutes associated with the committee. The most prominent regarding information security appears to be the 27th Central Research Institute, which studies command and control systems and the information infrastructure of the armed forces, among other duties.⁹⁹

Other significant cyber-related reports in 2015 included Russian military reports of foreign spy satellites posing as space junk. They wake up and work when directed to do so. This report quoted Oleg Maydanovich, commander of troops at the Space Command, who revealed that his people had "recently discovered a group of satellites created for the purpose of electronic intelligence-gathering."¹⁰⁰ These revelations were not substantiated further. It was also

reported that a military unit to counter cyber threats would be created in Crimea in October or November. The unit will secure Russian information systems and disrupt information systems of probable enemies, if needed.¹⁰¹

MILITARY JOURNALS ON INFORMATION'S IMPACT ON MILITARY AFFAIRS AND FUTURE WAR

While the Russian military does not always directly use the term “cyber” in their discussions of military operations, they sometimes use the terms “informationization” or “informatized.” Both imply the use of cyber methods, since it is impossible to “informatize” something without cyber or digital means. In their explanations of military operations, the Russian military discusses the use of information as a means to persuade (through information confrontations, struggles, influence, and other information-psychological means) or as a means to make warfare more precise and quick (through the use of digital means and other information-technical devices).

Writing in *Military Thought* in 2003, General of the Army M. A. Gareev stated that the enhanced nature of the information struggle could work from within to subvert nations.¹⁰² In 2008, Gareev introduced the concept of strategic deterrence, defined as a set of inter-related political, diplomatic, information, economic, military, and other measures with threats of unacceptable consequences as a result of retaliatory actions that deter, reduce, or avert threats and aggressive actions by any state or coalition of states.¹⁰³ He declared that Russia's main effort would not be directed at the destruction of every weapon but, rather, at the destruction of

their unified information space, sources of intelligence, navigation and guidance systems, and communications and command and control systems.

In 2009, S. A. Bogdanov published an article in conjunction with Colonel V. N. Gorbunov in *Military Thought* that identified future war trends. The imprecise character of future war includes the unknown final impact of information technologies on warfare.¹⁰⁴ The information component of war will grow in weight, where information superiority will become a principal condition for successful military operations. Actions may involve weakening a state through information, psychological, moral, or even climatic (causing natural disasters, dispersing clouds to inhibit or enable the proper functioning of precision-guided weapons, etc.) and organizational measures. Information and other means can be used to weaken the external position of a state by ruining its international relations.¹⁰⁵

S. G. Chekinov and S. A. Bogdanov then began a series of articles over the next 5 years on basic trends in military thought. Many of their articles touched on information or cyber issues. In a 2010 article on asymmetric options,¹⁰⁶ they noted that technologically, the strategy of indirect operations is characterized by the multiplicity of forms and modes of operations employed, and that the United States uses this strategy now to neutralize adversaries without weapons, but by means of information superiority.¹⁰⁷ Information has been used to mislead, surprise, intimidate, or undermine leaders of an opposing force in the past. Usually, this occurred regarding tactical situations. Contemporary conditions indicate that the means of information influence (indirect operations) now are capable of strategic missions. Strategic information confrontation can disorganize military and state command and control

measures, dupe the adversary, create public opinion, organize antigovernment demonstrations, and lower the opponent's resolve to resist.¹⁰⁸

In 2011, Chekinov and Bogdanov wrote an article titled the "Strategy of the Indirect Approach." They stated that non-military means show affinity to the concept of the indirect approach or indirect strategy.¹⁰⁹ The first concept they discussed was information, noting that its impact by 2011 enabled it to tackle strategic tasks, and that strategic information confrontations are used to disorganize an opponent, deceive him, create a desired public opinion, and organize antigovernment protests, among other operations.¹¹⁰ Information can promote interests by using information technologies to pursue military, economic, and other types of actions. These actions can affect individuals and the mass consciousness of a nation or the systems of governmental and military control. Now, intelligence services are using the information infrastructure and technical means to collect data for specific political goals. Without information security, a state can lose its political sovereignty, economic independence, and role as a world leader. The United States has used information in the past few years to maintain its position in the world and to accomplish their ultimate goals.¹¹¹

Chekinov and Bogdanov then noted that Western civilization devised a unique indirect approach known as the so-called organizational weapon that allowed them to win the "cold psycho-information war." It became known as the cognitive information phase of organizational weaponry, and was defined by S. Chernyshev: the organizational weapon is the employment of systems designed to eliminate a certain society, organization, company, or family (the mission does not have to be on a global scale).¹¹² Methodologies

for psychological manipulation and impact include metaprogramming, or the installation of program filters forcing clients to perceive the world in a way desired by the programmers. This is said to be a controllable cell of the global web, also called a thinking web. Examples of their use include color revolutions.¹¹³ This idea of “perceiving the world in a way desired by the programmers” closely resembles the Russian concept of reflexive control.

In 2012, Chekinov and Bogdanov discussed the initial period of war (IPW).¹¹⁴ The authors, for the first time it seems, discuss new generation wars (NGW). NGW will be fought with fire strikes, electronic strikes, robot-controlled warfare, aerospace and mobile aerial operations, air assaults, information-reconnaissance strikes, anti-reconnaissance and similar operations, and combat and other actions. Thus, a key component of NGW appears to be information-related issues. It remains possible to deter an aggressor through direct threats, ultimatums, and the planning or conduct of information campaigns that mislead adversaries about Russia’s readiness to counter aggression. Special information campaigns can utilize broadcasts, the mobilization of reservists, the relocation of Army units, and the deployment of reserves from the heartland to influence adversaries. These actions must be supported by false activities captured by adversary reconnaissance units. Mass media can be used to stir up chaos and confusion in government and military management or command and control. The media can instill ideas of violence, treachery, and immorality in another nation to demoralize the public, which appeared to be a Russian vector in Ukraine. The danger associated with the mass media, the authors note, means that it must be kept under government control. National information sources must be kept from adversarial influence.

Therefore, the goals of armed struggles in the IPW will be attained through the employment of military, economic, and information technology measures in combination with efficient psychological information campaigns.

The use of information operations will enable friendly forces to fool the opposite side's military and political leaders about the aggressor's intention via a disinformation campaign. It will be designed to disseminate false strategic military information through diplomatic channels and on government-controlled and private radio and TV about the status and actions of its forces. The authors did offer a special definition for what they termed a "technological and psychological information attack." A technological information attack can be launched against the hardware and software core of the adversary's information and telecommunications environment, or cyberspace for short, to damage it and protect friendly control systems against similar attacks. A psychological information attack is directed against information exchange in the cyberspace in a bid to achieve information superiority and cause damage to the adversary. Thus, attaining information superiority is a priority if strategic objectives are to be achieved in NGW. This would appear to be the initial operation in an IPW scenario, with the second operation being the use of all conventional weapons on a massive scale against military targets and economic objectives.

In 2013, Chief of the General Staff Valery Gerasimov wrote in the *Military-Industrial Courier* that the use of non-military actions were occurring at a rate of four-to-one over military actions in confrontations. This is taking place with the use of "information influence, the forms and methods of which are continually

being improved.”¹¹⁵ Information conflict, in particular, opens up “extensive asymmetric capabilities for the reduction of an enemy’s combat potential.”¹¹⁶ Gerasimov described these changes and, consequently, potential changes in the conduct of future war, with a special emphasis on information operations, noting that armed struggles are occurring simultaneously in all physical media and the information domain, and that the command and control of forces and means is taking place in a uniform information domain.

Also in 2013, the article, “The Nature and Content of a New-Generation War,” appeared in *Military Thought*. Chekinov and Bogdanov appeared to describe the way in which a future war might be fought after a consideration of what others had to say about the nature of future war.¹¹⁷ In many respects, this article represents a summary of their earlier articles and adds the thoughts of other noted practitioners to support their thoughts. Initially, Chekinov and Bogdanov described “new-generation wars” as based on non-military options, mobile joint forces, and new information technologies, more along the lines of the nature of war discussions that had preceded their article. Gerasimov noted that “precision weapons are used on a growing scale. Weapons based on new physical principles and robot-controlled systems are going into service in large quantities.”¹¹⁸

The authors noted that advanced countries were already using NGW. NGW was forecasted to alter radically the character and content of armed struggle. The following are examples of NGW that can erode, to the greatest extent possible, the capabilities of an adversary’s troops and civilian population to resist: intensive fire strikes against seats of national and military power; military and industrial objectives by all arms of the service; employment of military space-based

systems, EW forces, and weapons; electromagnetic, information, infrasound, and psychotronic effects; and corrosive chemical and biological formulations. It is also expected that nontraditional forms of armed struggle will be used to cause earthquakes, typhoons, and heavy rainfall lasting for a time long enough to damage the economy and aggravate the socio-psychological climate in the warring countries.¹¹⁹

The authors added that NGW would be dominated by information and psychological warfare, and that asymmetric action would be used extensively (in the form of indirect actions and non-military measures). Decisive battles will rage in the information environment, where the attacker manipulates the “intelligent machines” at a distance. A quantum computer may turn into a tool of destruction in this sense, as new-generation “blitz” wars will be created, operating in the nanosecond range. Speed, synchronization, and concurrency will decide success or failure. These attacks will be set up by information, moral, psychological, ideological, and other measures months prior to the actual attack.¹²⁰ The start of the military phase will be preceded by large-scale reconnaissance and subversive missions conducted under the guise of information operations. These operations will target important objectives vital to the country’s sustainability.¹²¹ The authors relate that the opening period of a new-generation war will be pivotal, breaking it down into several phases, to include targeted information operations; EW operations; aerospace operations; and the use of precision weaponry, long-range artillery, and weapons based on new physical principles. A demonstration of Russian readiness and a strongly worded statement, they note, can be used to prepare an information operation to mislead the enemy about Russia’s readiness to

fight aggression.¹²² Information superiority and anticipatory operations will be the main ingredients for success in new-generation wars.¹²³

The January 2015 issue of *Military Thought* included another article by Chekinov and Bogdanov, "The Art of War in the Early 21st Century: Issues and Opinions."¹²⁴ Non-military measures are said to include the large-scale impact of information on the public and armed forces.¹²⁵ Furthermore, advanced information technologies will help drastically reduce spatial, temporal, and information gaps between troops (forces) and facilities in operations on the one hand, and bodies of command and control of unified groupings on the other. Remote noncontact impact on the adversary will become the chief method of attaining the objectives of combat actions and operations. Under these conditions, differences between strategic, operational, and tactical levels will be obliterated, as will be the difference between offensive and defensive activities.¹²⁶

Lieutenant General A. V. Kartapolov, former head of the Main Operations Directorate, noted in February 2015 that, when the United States uses direct and indirect actions, an information campaign is developed showing there is no alternative to the use of force. Later, sanctions are introduced.¹²⁷ These measures are accompanied by dynamic information-psychological effects against the population and leadership of victim states. Russia calls such actions "indirect."¹²⁸ The development of an information confrontation campaign by an adversary is designed to disorganize Russia's national development; destroy the foundations of its sovereignty; and, help change a country's rulers, according to Kartapolov. Thus, information effects are equivalent to the use of armed force in some cases. The "color revolution" information effect primarily uses

the Internet to affect the consciousness of people. As such, changes in the nature of conflict now include the conduct of combat in information space, to include improving algorithms and the technical basis of reconnaissance-strike systems in order to deliver precise, electronic, and information strikes against the most important targets and critical structures.¹²⁹ Kartapolov notes:

Asymmetric operations are inherent to a conflict situation in which by means of actions of an economic, diplomatic, informational, and indirect military nature a weaker enemy uses an asymmetric strategy (tactics) to conduct an armed struggle in accordance with his available limited resources to level the stronger side's military-technological superiority. A very important condition for conducting asymmetric operations is the precise determination of the enemy's most vulnerable and weakest areas, action against which will provide the maximum effect with minimal expenditure of one's own forces and resources.¹³⁰

In an October 2015 article, Chekinov and Bogdanov discussed the forecasting of future war.¹³¹ Of particular interest is that they used the term "new-type war" and not their standard NGW, indicating that Kartapolov's terminology had overtaken theirs. They said the essence of future war, usually stated as warfare using arms, will remain,¹³² while the nature and substance of future wars will be changed radically by new weaponry (space-based attack weapons; orbiting battle space stations; and new weapons of improved destructive power, range, accuracy, and rate of fire) and by new uses of information (greater capabilities of reconnaissance, communication equipment, and information warfare systems). Forecasts of future war show that they will be resolved by a skillful combination of

military, non-military, and special nonviolent measures and by taking advantage of information superiority.¹³³

New information techniques, operating in the nanosecond format, will be the decisive factor for the success of military operations. These techniques are based on new technologies that are key components of information weapons. They may paralyze computer systems that control troops and weapons and deprive the enemy of information transmission functions. In fact, computers may turn into a strategic weapon in future wars as a result.¹³⁴ Information and psychological warfare will come in all forms and methods, with the goal being to achieve superiority in troop control and to erode the morale and spirits of the enemy. Future wars will be launched by EW forces, which will protect friendly forces, block foreign propaganda disinformation, and strike at enemy EW forces and assets. They will blend with strategic operations. Long-term forecasts predict that strategic goals will not be achieved in future wars unless information superiority is assured over the enemy. Russia must be on the lookout for a special operation designed against them to “misinform and mislead the other side’s military and political leaders,” which will include large-scale measures to instigate internal tensions in society.¹³⁵

In 2013, an article to consider separately, “Information Confrontation and Future War” by Major-General Vladimir Slipchenko, was published posthumously. In the 1990s and into the first decade of 2000, Slipchenko was one of the most prolific and creative military writers in Russia. His two most impressive works were books, *Future War* and *Sixth-Generation War*. His importance should not be underestimated, since, after his death, a leading ground force journal, *Army Journal*, published one of his articles. He noted there that

information superiority includes (1) domination in space and reconnaissance systems, and in warning, navigation, meteorological, command and control, and communication assets; (2) advantages in numbers of recce-strike systems and precision missiles; (3) speed of introducing new programs, systems, and capabilities; and (4) reliable information protection of assets.¹³⁶ Slipchenko wrote that “next (not new)” generation warfare was on the horizon. Man should expect the development of a set of various forces and means capable of disrupting the normal functioning of the planet’s information domain and information assets as well as the means of life support for Earth’s inhabitants. NGW may not be focused at the operational or strategic level, but it may be focused at the planetary level. Planetary aggressors can provoke technogenic catastrophes in large economic regions and sections of the world with information networks and assets. He wrote that, after 2050, ecological weapons may also be developed for directed effects against countries’ mineral and biological resources, local areas of a biosphere (atmosphere, hydrosphere, and lithosphere) and climate resources.¹³⁷

Slipchenko predicted that information struggles would grow sharply between command and control systems of strike and strategic defense forces at various levels, between strike and defensive assets of the countries, over the creation of a complex information and interference situation in the entire aerospace domain in the region of combat operations and on the entire theater of war (military operations), over imposing on the enemy one’s own rules for conducting military operations, and over a reliance on information support for military-technological superiority. Information confrontation is becoming the factor that will

substantially influence future warfare itself – its beginning, course, and outcome. Information confrontation in noncontact warfare should be understood as a new strategic form of struggle in which special methods and resources act on an enemy's information environment, while protecting one's own environment to achieve strategic goals.¹³⁸ The possession of information assets in future warfare is becoming as indispensable an attribute as possession of forces and means, arms, munitions, transport, and so on were to past wars. Winning information confrontations will result in the achievement of strategic and political goals and in the defeat of an enemy's armed forces (including the capture of his territory, destruction of his economic potential, and overthrow of his political system).¹³⁹ He thus places the utmost premium on the attainment of information superiority and the ability to win any information confrontation.

Slipchenko also discussed the defensive component of noncontact warfare found in the employment of the forms and methods to safeguard one's information systems and assets via operational and strategic camouflage, physical protection of information infrastructure objects, counter-disinformation, and radio-electronic warfare. The defense component of information confrontation in noncontact warfare uses methods such as strategic camouflage; disinformation; radio-electronic warfare; physical damage and destruction of information infrastructure objects; and "attacks" against enemy computer networks ("information aggression," which can employ special effects, such as computer viruses, logic bombs, and so on), introduced in a timely fashion against a specific command. "Psychological strikes" or "psychological aggression" can also be employed (i.e., graphic depictions in the sky of a religious nature).¹⁴⁰

A special role in new-generation warfare (he changed from “next” to “new” in the middle of the article) belongs to intelligence, to include penetrating computer software, telecommunication networks, radio navigation systems, troop and weapons command and control systems, energy, transport, mass media, finance, and so on. NGW can begin in advance using reconnaissance assets; command, control, and communications (C3) systems; and means of destruction (recce-strike) combat systems to plan air-space-naval strikes on a strategic scale (using a noncontact method) against any country in any region of the planet without building up forces and means beforehand, with such warfare controlled directly from the territory of the state delivering the strikes.¹⁴¹

For such systems to operate, space reconnaissance assets are required. They must become a principal source of information during the planning, organization, and conduct of combat operations, where radio-technical, radar, photo, TV, infrared, and radiation reconnaissance are carried out continuously, providing information in real time. Space assets further support the guidance of precision cruise missiles to targets.¹⁴² Each country preparing or already prepared for noncontact warfare will want to control fully near-Earth and interplanetary space. Command and control of all combat intelligence systems, forces, and assets will be implemented from command posts in space, in the air, or from protected command posts on the ground, radically changing the content and nature of warfare where it is not masses of forces but, rather, recce-strike and defensive combat systems that will clash in noncontact warfare. Such conflict will be characterized not by the quantitative and qualitative superiority of one of the sides but, rather, by structural and

organizational factors, effectiveness of command and control, and the quality of communications and guidance systems in support of military operations.¹⁴³

INFORMATION ISSUES IN KEY DOCUMENTS

In conjunction with these cyber reforms and use of cyber/information operations in future war, the military developed a concept paper on information and updated two of its military doctrinal statements. The paper was developed in 2011 and titled *Conceptual Views on the Activities of the Armed Forces of the Russian Federation in the Information Space*. The two doctrinal statements were the 2010 and 2014 *Military Doctrines of the Russian Federation*. A summary of their main points is shown.

Conceptual Views

The *Conceptual Views on the Activities of the Armed Forces of the Russian Federation in the Information Space* document defined terms that included information warfare and information weapons, among others. *Conceptual Views* also offered principles (legality, priority, integration, interaction, cooperation, and innovation) to guide the activities of the Russian Federation's Armed Forces (RFAF) in information space:

- Legality—respect for national sovereignty and noninterference in the internal affairs of other states;
- Priority—collection of relevant and reliable information regarding threats and protection of information resources;
- Integration—utilization of a coordinated and unified system to enhance the capabilities of the entire system;
- Interaction—coordination of defense activities

- with other federal executive bodies;
- Cooperation—development of cooperation on a global level to detect and prevent information and technological threats to peace, settle disputes involving these assets, develop confidence-building measures in regard to the use of transboundary information systems, and ensure the secure use of a common information space; and,
 - Innovation—recruitment of skilled personnel, because Russia’s innovation centers must be able to develop and produce systems capable of carrying out activities in information space.¹⁴⁴

The paper proposed several definitions of terms. One of the most interesting was the concept of information war, which the paper defined as:

Confrontation between two or more States in information space with the goal of inflicting damage to information systems, processes, and resources, as well as to critically important structures and other structures; undermining political, economic, and social systems; carrying out mass psychological campaigns against the population of a State in order to destabilize society and the government; as well as forcing a State to make decisions in the interests of their opponents.¹⁴⁵

Of interest is that this last line is nothing more than the definition of reflexive control (RC), which the Russians use to deceive decisionmakers into making decisions that Russia desires. RC was defined in 1995 by Colonel Sergey Leonenko, who stated that RC:

consists of transmitting motives and grounds from the controlling entity to the controlled system that stimulate the desired decision. The goal of RC is to prompt the enemy to make a decision unfavorable to himself.¹⁴⁶

The *Conceptual Views* further included the following rules for the use of information space when it is used as an agent of conflict deterrence, conflict prevention, and conflict resolution.

- Deterrence and conflict prevention: develop an information security system for the RFAF that can deter and resolve military conflicts in information space; remain in a constant state of readiness; expand the group of partner states; conclude, under UN auspices, a treaty on international information security; establish control over the escalation of conflict; take priority steps to counter the development and spread of a conflict; neutralize factors leading to the conflict's spread; and, shape public opinion means to limit the ability of instigators to further escalate the conflict.
- Conflict resolution: resolve information space conflicts primarily through negotiation and reconciliation; if in a crisis stage, exercise individual and collective self-defense rights not inconsistent with international law; deploy manpower and resources for ensuring information security on the territory of other states in the course of negotiations and in accordance with international law; and, keep all media informed of the situation.¹⁴⁷

It was noted that, to a large extent, Russia's defensive capability depends on the effectiveness of armed forces activities in information space.

2010 Military Doctrine

In 2010, Russia approved a new military doctrine.¹⁴⁸ This version was divided into sections that discussed military dangers and threats, the military policy of the Russian Federation, and military-economic support for defense. Information issues were not stated as an express external military danger but, rather, as an internal military danger defined as the disruption of the functioning of organs of state power, of important state and military facilities, and of the information infrastructure of the Russian Federation. Any impediment to the functioning of state or military command and control systems was expressed as a main military threat. The intensification of the role of information warfare was noted as a characteristic of contemporary military conflicts. The prior implementation of measures of information warfare in order to achieve political objectives without the utilization of military force was identified as a feature of modern military conflicts. High-tech devices to be used in future military conflicts include precision weaponry, electromagnetic weapons, lasers, infrasound weaponry, computer-controlled systems, drones, and robotized models of arms and military equipment.¹⁴⁹

According to the doctrine, Russia must possess the proper information technology to deter conflict. Improving the system of information support for the troops was given as a main task for the development of military organization. With regard to military-economic support, the main task was to create conditions for developing military-technical potential at a level necessary for implementing military policy. This included developing forces and resources for information warfare, improving the quality of the means of

information exchange using up-to-date technologies, creating new models of precision-guided weapons, and developing information support for them.¹⁵⁰

2014 Military Doctrine

The *2014 Military Doctrine* noted “a trend toward a shift of military dangers and military threats into the information space and internal sphere of the Russian Federation has begun to show.”¹⁵¹ A military danger is characterized by the aggregate of factors capable of leading to a military threat. The latter is characterized by the real possibility of the outbreak of a military conflict, and it is here that things become even more dangerous. Section 12 of the doctrine states that a main external military danger is the:

Use of information and communications technologies for military-political objectives to carry out actions contradicting international law, directed against the sovereignty, political independence, and territorial integrity of states, and representing a threat to international peace, security, and global and regional stability.¹⁵²

Internal dangers include activities aimed at disorganizing the information infrastructure of Russia, as well as activities having an information effect on the population, especially among young citizens, in order to undermine historical, spiritual, and patriotic traditions in the area of homeland protection.¹⁵³

A main task of the Russian Federation with regard to preventing or deterring military conflict is to estimate and forecast the state of interstate relations in the military-political sphere using state-of-the-art technical means and information technologies, and to create conditions that lower the risk of information

and communications technologies being used for military-political objectives to carry out actions contradicting international law.¹⁵⁴ A main task for developing the military organization is to upgrade the system of information security of the armed forces. Finally, regarding tasks for outfitting the armed forces, developing the defense-industrial complex, and implementing military-political cooperation, the following were mentioned:

- Development of information confrontation forces and assets.
- Quality upgrading of the means of information exchange based on the use of state-of-the-art technologies and international standards, as well as a unified information space of the armed forces, other troops, and entities as part of the Russian Federation information space.
- Creation of basic information-control systems and their integration with fire control systems and automation equipment complexes of command and control entities of the strategic, operational-strategic, operational, operational-tactical, and tactical scale.¹⁵⁵
- Support of Russian Federation technological independence in the production of strategic and other models of arms.
- Formation of a package of priority technologies supporting advanced systems and models of arms.¹⁵⁶
- Development of a dialogue with interested states on national approaches to opposing military dangers and military threats arising in connection with large-scale use of information and communications technologies.¹⁵⁷

What about Color Revolutions and the Armed Forces?

Russia's 2014 *Military Doctrine* notes, "a trend toward a shift of military dangers and military threats into the information space and internal sphere of the Russian Federation has begun to show."¹⁵⁸ This trend is felt not just within Russia's political and diplomatic circles, but also in military ones. Thus, Russia sees cyber dangers lurking everywhere. For example, an article in the authoritative journal, *Military Thought*, titled "Political Engineering of Color Revolutions: Ways to Keep Them in Check" is representative of such dangers.¹⁵⁹ At the recent Army-2015 Forum, Defense Minister Shoigu noted that the Russian Federation plans to order scientific research on the "color revolution" topic. While some think it is not right to involve the military in political issues, Shoigu noted that it is not right to repeat the situation of the collapses of 1991 and 1993.¹⁶⁰

CYBER DETERRENCE OPTIONS

To deter or counter threats to Russia (which Russia states is the U.S. Prompt Global Strike concept; a global, anti-ballistic missile [ABM] system; color revolutions; cyberattacks; and, an Islamic State in Iraq and Syria [ISIS] threat to the south), Putin's staff is employing some old methods, while developing new ones. Naturally, nuclear deterrence remains at the top of the list of ways to counter threats from the United States and will be used if needed. According to Colonel-General Sergey Karakayev, commander of the Strategic Missile Force, Russia's advantage in nuclear weapons will be exploited until nuclear weapons "lose their deterring

force as a result of technological progress or changes in the nature of international relations."¹⁶¹ Another source noted that Russia is creating "a system of strategic deterrence against which even in the remote future, there will be no acceptable defense."¹⁶²

It appears that some military authors believe information deterrence in general is not possible due to the rapid proliferation of information weapons and the degree to which they are difficult to count. They list five reasons why. First, information weapons are not like nuclear weapons. They do not give rise to expectations of mutually assured destruction, which lessens fears of unleashing an information war. Second, unlike nuclear weapons that are owned by a few states, cyber weapons exist everywhere, in states, nonstates, and the hands of individuals or terrorists. Third, information weapons are easier to develop, produce, and transfer to third parties. Fourth, anonymity guarantees that correctly identifying the protagonist is difficult and at times impossible. Fifth, it will be difficult to develop a balance in numbers and capabilities of weapons, since the parameters of specific information weapons may be difficult to uncover.¹⁶³

The consideration of a series of deterrent concepts does seem to exist in an attempt to protect its proclaimed national interests and territorial integrity. The nature of these deterrent actions was highlighted in Russia's *December 2015 National Security Strategy*:

Interrelated political, military, military-technical, diplomatic, economic, informational, and other measures are being developed and implemented in order to ensure strategic deterrence and the prevention of armed conflicts. These measures are intended to prevent the use of armed force against Russia, and to protect its sovereignty and territorial integrity.¹⁶⁴

That is, Russia's strategic deterrence concept appears to rely on implementing an interlinked package of measures. Russia has two terms for deterrence, *sderzhivanie* and *ustrashenie*. The military uses the former much more often than the latter. The terms are defined as:

(sderzhivanie) is defined as the deterrence of containment. It is used to limit the development of weapons or the use of military actions. . . . *(ustrashit')* is defined as deterrence through intimidation. It is used to frighten someone via fear [italics in original].¹⁶⁵

In effect, the terms seem to be complementary. Frightening someone can result in his containment. Containing someone can result in his being frightened. Russian deterrent actions in the information/cyber realm are related to both definitions, and the Russians continue to use the concept of information deterrence in interesting ways. For example, in November 2015, Russian TV carried images of supposed "top secret" schematics of a Russian naval torpedo, the Status-6. The torpedo allegedly carries nuclear warheads and supposedly can travel up to 10,000 km, making it capable of striking the western shores of the United States and creating a tsunami in the process. Even the Russian press labeled this action as "deliberate stove piping" to deliver an information bomb. The torpedo would be impossible for either Prompt Global Strike or a Global ABM to detect or intercept. Of interest is that the torpedo's development may not even be complete, but just the suggestion of such a capability can help to deter an opponent, who is uncertain as to the validity of the claim.¹⁶⁶ A month later Russia stated that its "Rus" deep-diving submersible, part of the secret MoD Main Directorate for Deep-Sea Research,

had transmitted information from the North Atlantic Treaty Organization's (NATO) underwater intercontinental communications cables. The Rus can descend to 6,000 meters with a crew of three hydronauts, where it can carry out technical, emergency rescue, photography, video filming, or scientific research operations.¹⁶⁷

What about a Cyber Dead Hand?

David Hoffman's excellent book about the fall of the Soviet Union, titled *The Dead Hand: The Untold Story of the Cold War Arms Race and Its Dangerous Legacy*, is certainly one of the best (if not the best) works on that historical period from the perspective of the arms race. On page 422, he outlines a system known as Perimeter gleaned from interviews in Russia conducted by Brookings Institution scholar Bruce Blair with Russian missile expert Valery Yarynich. Perimeter was a type of "Dead Hand" system (as if rising from the grave) that allowed the launch of rockets that flew across Russia and literally "threw down" the codes to intercontinental ballistic missiles, enabling their launch without receiving the codes from the leadership in Moscow. It thus could launch missiles in case the leadership in Moscow was killed in a strike or incapacitated. Yarynich noted the following about Perimeter in a paper that Blair reported on:

It outlined how the 'higher authority' would flip the switch if they feared they were under nuclear attack. This was to give the 'permission sanction.' Duty officers would rush to their deep underground bunkers...if all communications were lost, then the duty officers in the bunker could launch the command rockets. If so ordered, the command rockets would zoom across the country, broadcasting the signal 'launch' to the intercontinental ballistic missiles.¹⁶⁸

During Perimeter's (Dead Hand's) practice sessions, when U.S. agencies were monitoring the activities of the strategic rocket forces, missiles did not launch immediately after receiving signals from the rockets zooming across Russia. The Soviet command knew the United States was watching these exercises, so they set a delay in the procedure and allowed the missiles to launch, say, 40 minutes or even 24 hours after the rockets gave them the command. Blair went back to Washington and checked the data that the United States had collected. He found out that heavy missiles did fly, just 40 minutes after the command rockets, on the date the exercise took place. Yarynych had told him the truth.¹⁶⁹ Thus, even if the Soviet High Command was eliminated, there was still a way for a retaliatory response — via what is often termed a “Dead Hand.” The development of this type of system makes one wonder if, in the age of weapons of mass destruction, is there a cyber-Dead Hand ready to initiate a retaliatory response against an adversary's infrastructure in case Russia's information/cyber infrastructure is somehow completely disabled?

CONCLUSIONS

The Kremlin appears to have constructed a series of policies, treaties, weaponry, and other developments to confront what it considers the contemporary cyber threat. Russia is motivated by dangers and threats to its information space, whether they be political, economic, military, diplomatic, or other. Luckily, it is blessed with an educational system that continues to produce outstanding algorithm writers, who are constantly in demand in the information age. Software writers and their teams are the most well-known elements in Russia. Their software is the key element in

new weaponry that delivers ordinance on target and enables command and control organs to function in a timely manner. There is also a thriving hacker and troll community to watch.

These code writers represent an important part of Russia's cyber defense. They assist in monitoring social networks, bloggers, and the banking industry, among other organizations. In addition, the policies enacted by Putin and his staff have also helped him to control cyber issues. The development of a cyber-security council and the approval of treaties and codes of cyber conduct with, among others, China, Central Asian countries, India, Brazil, and South Africa represent the continued forward progress in contending with cyber issues.

The number of cyber developments has been impressive, from the "Cyberspace Strategy of the Russian Federation" (designed to provide for the cyber-security of individuals, organizations, and the state) to the creation of new science companies, such as that at Tambov. It appears similar organizations will continue to be developed to deal with emerging technologies. Perhaps a science company dealing with weapons based on new physical principles will appear next. It is anyone's guess when cyber troops as a specific military organization (a battalion or brigade) will make their appearance.

The overall intent of this vast program is to enhance military reform further by introducing high-tech equipment into the military; to use the FSB to control the population's online activities; to engage the international community in developing a cyber code of conduct; and, to prevent "color revolutions" from breaking out in Russia. As Defense Minister Shoigu stated, words, cameras, photos, the Internet, and other types of information can become weapons on their

own. In the hands of an investigator, prosecutor, or judge, Shoigu notes these weapons can serve as elements that change the course of history.

In the meantime, Russia will continue down the path of developing new and exotic asymmetric thought for new types of cyber equipment for its forces and society. Sensitive information will be protected, criminals will be found in cyberspace, hacking will be opposed, and a technology infrastructure will be constructed throughout the country. Suspicion of the West will, however, continue to dominate security thinking.

INFORMATION AND CYBER ARTICLES

Table 12-1 contains a list of articles published in 2015 in *Military Thought* that reference or are directly involved with information and cyber topics. They include technologies, moral and psychological information support, EW, information systems, and so on. Thus, the reader may see how intense the discussions are on these topics.

Issue Number	Article
1	I. N. Dylevsky, V. O. Zapivakhin, S. A. Komov, A. N. Petrunin, and V. P. Elyas, "Military and Political Aspects of the State Policy of the Russian Federation in the Field of International Information Security."
2	Yu. Ye. Donskov, V. I. Zimarin, and B. V. Illarionov, "An Approach to the Construction of an Electronic Warfare System in the Conditions of Realized Network-Centric Concepts of the Armed Forces Development." A. Yu. Golubev, "Hatred of the Enemy as an Important Element of Information Security in Wartime."
3	V. A. Dvornikov, I. A. Korolov, and V. N. Pavlov, "About the Tactics of EW Troops."
4	I. V. Maneyev and V. N. Apanasenko, "The Media as an Effective Tool in Forming a Positive Image of Servicemen of the Russian Interior Ministry's Internal Troops."

Table 12-1. Information or Cyber Articles published in *Military Thought* in 2015

Issue Number	Article
5	Yu. Ye. Donskov, S. V. Golubev, and A. V. Mogilyov, "A Model for Training of Electronic Warfare Specialists to Carry Out Tasks on Information Support of Military (Combat) Actions."
6	V. M. Grigorenko and D. I. Melnik, "Basic Problems of Modeling Systems and Means of Aerospace Defense Based on Advanced Information Technologies."
7	I. V. Puzenkin and V. V. Mikhailov, "The Role of Information and Psychological Means to Ensure the Country's Defense Capability." E. A. Korzhan, D. M. Kryukov, and L. V. Kotenko, "Socialization and Education of Cadets in a Military Higher School by Means of Information Technologies." N. I. Yeliseyev and O. A. Finko, "Theoretical Aspects of the Development of Electronic Documents Circulation's System of the Ministry of Defence of the Russian Federation." B. A. Fisich, I. M. Rutko, and Ye. Sh. Diveyev, "Analysis of the Possibilities for Extending the Sphere of the Application of Geographic Information Systems for Military Purposes."
8	S. V. Goncharov and O. G. Zayets, "Assessment and Recognition of Moral-and-Psychological Factors during Decision-Making by Commanders Using Automated Systems of Command and Control." S. A. Sakun and A. V. Kiselyov, "Features of Moral-and-Psychological Support of the Combat Service Activities of the Russian Interior Ministry's Internal Troops in the Northern Caucasus." A. S. Korobeynikov, D. V. Kholuyenko, and S. I. Pasichnik, "Efficiency Group of Electronic Warfare Forces during complex Defeats of the Information Management System of the Enemy." Yu. Ye. Donskov, S. N. Zhikharev, and A. S. Korobeynikov, "Using Forces and Means of Electronic Warfare for the Protection of Ground Objects from Aerospace Attacks." Yu. V. Astapenko, "XXXIV All-Russian Scientific-and-Technological Conference, 'Problems of the Efficiency and Safety of Complex Technological and Information Systems'."
9	None.
10	V. N. Kozichev, V. N. Kargin, A. V. Shirmanov, and S. P. Goloshev, "Prospects for the Creation of Corporate Automated Information Systems for Military Use." Yu. Ye. Donskov, O. G. Nikitin, and P. N. Besedin, "The Role of Intelligent Decision-Making Support Systems during the Control of Electronic Warfare at Combined-Arms Tactical Formations."

Table 12-1. Information or Cyber Articles published in *Military Thought* in 2015 (cont.)

Issue Number	Article
11	A. V. Khomutov, "The Experience and Prospects of the Concept of a Unified Information-and-Communication Network for the Control of Troops." V. V. Kondratyev, A. Yu. Krupsky, and D. Ye. Panteleyev, "On Estimating the Combat Effectiveness of Information Support for the Control of Combined-Arms Tactical Formations." S. I. Pasichnik and A. S. Korobeynikov, "Features of the Methodological Support to Evaluate the Effectiveness during Modeling of Complex Defeats of the Information-and-Control Systems of the Enemy."
12	Seven of the 11 articles of this issue were on electronic warfare.

Table 12-1. Information or Cyber Articles published in *Military Thought* in 2015 (cont.)

DISINFORMATION VIGNETTES

This section offers short vignettes of Russia's use of cyber disinformation. France, Germany, the United States, and the Ukraine are examined, among others.

There have been several countries that have allegedly been attacked by Russian hackers in the past 6 months that have openly discussed the incidents, with Lithuania, Latvia, and Estonia being some of the most prominent. There are probably many others that have not been reported. Here we will focus on four: France, Ukraine, Germany, and the United States. At this point in the investigations and at the time of this writing, it is unknown if the hackers were state supported or were acting on their own.

France

In June 2015, France suspected that a group of Russian hackers posed as Islamic State militants and conducted a cyberattack against TV5Monde, making it look like an attempt to spread terrorist propaganda.

The group called itself “CyberCaliphate,” and such an attack made sense in light of the attack over 6 months before on Charlie Hebdo. However, those investigating the incident think this was an example of misdirection, and that evidence was pointing to APT28, a Russian hacker group discussed in more detail in the United States section. The IP addresses hosting the CyberCaliphate website matched those used by APT. The Russian Government denied involvement in the incident.¹⁷⁰

Germany

In December 2015, *Der Spiegel* magazine (electronic version) discussed a cyberattack against the Bundestag and other governments in NATO that had taken place in April. Investigators believe that APT28 was behind this attack, and it turned out to be the most serious attack against a constitutional body in Germany. An e-mail contained an address ending in “un.org,” so it did not raise tremendous suspicion. Hackers dug their way to “other places in the network” and “had access to 14 servers of the Parlakom network, including the main server that stores all access data in the Bundestag.”¹⁷¹ In March, the *Frankfurter Allgemeine* noted that Russia is running a misinformation campaign to unsettle society at home and abroad. At home, Russia’s political technologists distort reality and induce a climate of fear and threats in society that cause it to draw inward and support Putin. Abroad, the technologists distort information or offer half-truths to manipulate public opinion. The amount of news it broadcasts to foreign audiences is so huge that much goes unverified and, with many half-truths interspersed among facts, such information noise then causes a loss of orientation

and clarity among a populace used to the truth. TV channels under Kremlin control make “clever use of the Internet,” as an unknown website may publish a story that other dubious websites repeat. Such sources on the Internet then begin to be put into play, as something that must be considered, a voice that must be heard. Russian state TV stories about a girl kidnapped by migrants and raped first appeared on such a website. Social media further incited more appeals, none of which was verified. At times, even plausible sources were quoted, which became instrumental in passing along the fabrication. False stories in such an environment can become credible to social media types who already doubt the veracity of their own media. Reader forums may be flooded with pro-Kremlin statements from international media sites, with Internet trolls playing a role and passing off Kremlin-based opinion as international fact.¹⁷²

Ukraine

A Facebook post on November 21, 2013, by Mustafa Nayyem, who was disappointed when Ukraine failed to integrate with the EU due to Putin’s pressure, advised people to come to Independence Square, also known as Maidan. Some say this started the revolution in the square.¹⁷³ Such protests were a seminal crisis for Putin due to his fear of color revolutions. While Ukraine’s information agency (UNIAN) reported that a cyberattack had occurred in reaction to events in Maidan, this was not the real problem for protesters. Rather, it was the tidal wave of propaganda that Russia spread on social networks, infiltrating VKontakte first before exploiting the digital pathways for its own purposes. Trolls and disruptive online discussions

were unleashed with inflammatory messages.¹⁷⁴ Fake news agencies such as ANNA News were registered in places such as Abkhazia, and the agency (presumably ANNA) established a Russian replica of YouTube, known as Rutube. Quasi-news agencies set up accounts on VKontakte, Facebook, Twitter, Google+, and Odnoklassniki. Another faux agency, Novorossia Television, set up social network accounts and posted videos that were picked up by pro-Kremlin TV.¹⁷⁵

Putin had invested his personal prestige in Ukrainian President Viktor Yanukovich, and when the latter went missing in February 2014, it was a frightening prospect. On March 3, Roskomnadzor quickly blocked 13 pages of groups linked to the Ukrainian protest movement on VKontakte. On March 8, pro-Kremlin activists launched the website *predatel.net* (which means “no traitors”), gathered statements of liberals deemed unpatriotic (Navalny, Nemtsov, Parkhomenko, etc.) and then threatened them.¹⁷⁶

Just 72 hours before the May 2014 election that potentially would offer a mandate to Ukraine’s population to develop a legitimate pro-Western government, the election headquarters was hacked by a pro-Moscow group known as CyberBerkut. Fortunately, operations were restored in time for the elections. CyberBerkut also attached government documents on its website and hacked the Ministry of Foreign Affairs and the Ministry of Defense, among others. CyberBerkut is allegedly an independent Ukrainian organization. Ukrainian officials, however, strongly suspect Russian involvement with the group. There is little surprise in Ukraine’s weak cybersecurity system, since it has Russian technology in its inventory, is infested with Russian supporters, lacks security updates, and hosts much of its e-mail on servers located in Russia.

The hacker tools being used against Ukraine are sophisticated, further indicating nation-state sponsorship.¹⁷⁷ However, there is no proof, but it was the same scenario that seemed to be repeating itself in 2015.

In January and February 2015, there were Ukrainian reports that Russian special services had launched campaigns to disrupt Ukraine's mobilization effort. There were social network videos that told people to reject mobilization. Ukraine's Security Service noted that this is a campaign to force people to doubt the need for protecting their "motherland" and that it is an information and psychological operation. Their sources say that two groups of the General Staff's Main Intelligence Directorate are behind the disruption campaign. Phase One is to persuade people of a logical link between poor command, oligarch actions, and frontline problems. Sample applications were provided to help people avoid mobilization on, as the application noted, legal grounds. Phase Two may involve organized protests by so-called soldiers' mothers and reports about soldier funerals and torture.¹⁷⁸

Thus, Russia has been a bit trickier with its use of cyber against Ukraine. One Kiev report noted that there was a scheme to bribe voters with Internet technologies. It noted:

The cyber technology to remotely bribe voters has for the first time been used at these elections (on 25 October and mayoral runoffs in several big Ukrainian cities on 15 November). It includes several stages. At the first one, people are enticed by having their mobile phones topped up by 50 hryvnias (about two dollars). Then those who respond are paid 400 hryvnias for a photo of a ballot paper with a tick next to the name of an elected candidate.¹⁷⁹

A member of the Interior Ministry of Ukraine stated that the funding came from Moscow. Law enforcement officials stated that 10,000 people sold their votes at the October 25 election.¹⁸⁰ In December, a report from iSight Partners claimed that it had gotten the malicious code that caused a massive blackout in the Ivano-Frankivsk region of Ukraine, leaving hundreds of thousands of homes without power. The size of the blackout was viewed as a milestone in hacking, since in the past such commonplace attacks never caused such an incident. The country's energy minister blamed Russia for the attack on the power grid, and security firm ESET agreed, since malware known as BlackEnergy caused the outage, which is a Trojan that has been used by Russia in previous attacks against Ukrainian targets.¹⁸¹ Another report noted that U.S. security agencies were studying malware from the December 23 blackout that affected nearly 700,000 homes for several hours. They had not decided if the hackers acted on behalf of Russia's Government or with its implied consent.¹⁸²

United States

Two U.S.-based cyber companies have reported extensively on Russian cyber espionage abroad, as well as in the United States. Only those reports on operations abroad are discussed here. In 2014, FireEye reported on a Russian group that had been running hacker operations since 2007. The report focused on APT28, which "does not appear to conduct widespread intellectual property theft for economic gain. Instead, APT28 focuses on collecting intelligence that would be most useful to a government."¹⁸³ It also noted that targeting extended to privileged information related to not only governments but also to militaries

and security organizations would likely benefit the Russian Government. The report offered several malware samples containing details indicating the developers are Russian language speakers operating during business hours that are consistent with the time zone of Russia's major cities, including Moscow and St. Petersburg. FireEye analysts also found that APT28 has used flexible and lasting platforms indicative of plans for long-term use and sophisticated coding practices that suggest an interest in complicating the reverse engineering efforts. Actual targets include the Georgian Defense Ministry, Eastern European government organizations, NATO, and other European Security organizations.¹⁸⁴

LOOKINGGLASS is another cyber company that has written on Russian cyber espionage efforts. In April 2015, the company released a report covering Russian cyber espionage efforts against Ukraine, focusing on a campaign known as "Operation ARMAGEDDON." The report states that the campaign had been ongoing since at least mid-2013, primarily targeting the Ukrainian Government, law enforcement, and military officials in order to identify Ukrainian military strategies that would aide Russian warfare efforts.¹⁸⁵

Russia

In September, *Vedomosti (Record)* discussed coding in general. Various firms were accessed. Kaspersky Lab representative Alexander Gostev noted that the Lab follows APT28. He added that its hacker techniques are Russian, and the operating system version on which files are created are Russian. Infowatch specialist Natalya Kaspersky noted that Russian programmers do code slower than Chinese or Indian programmers; and

Sergey Golovanov noted that assembly language and C programming is typical for the Moscow Engineering and Physics Institute.

ENDNOTES - CHAPTER 12

1. "Russia's Kaspersky Labs signs deal with China Cyber Security Company as Beijing and Moscow call for end to US domination of internet," *South China Morning Post*, December 17, 2015, available from <https://www.scmp.com/news/china/policies-politics/article/1892257/russias-kaspersky-labs-signs-deal-china-cyber-security>. This deal was most likely made at the World Internet Conference, which took place in China in mid-December.

2. "Duma chairman Naryshkin objects to idea of monitoring office employees' mobile conversations (Part 2)," Interfax News Agency, in English, May 11, 2016.

3. The author's website is *Agentura.ru*. Andrei Soldatov and Irina Borogan, *The Red Web: The Struggle between Russia's Digital Dictators and the New Online Revolutionaries*, New York: Public Affairs, 2015, p. x.

4. Soldatov and Borogan, *The Red Web*, p. 11.

5. *Ibid.*, p. 124.

6. The first search engine was available from *Rambler.ru*. See also *Ibid.*, pp. 62-63.

7. Soldatov and Borogan, *The Red Web*, p. 68.

8. *Ibid.*, p. 70.

9. *Ibid.*, p. 111.

10. *Ibid.*, p. 114.

11. *Ibid.*, pp. 294-295.

12. *Ibid.*, p. 166.

13. *Ibid.*, p. 196.

14. Ibid., p. 263.
15. Ibid., p. 238.
16. Ibid., p. 233.
17. Ibid., pp. 215, 220.
18. Ibid., pp. 313-314.
19. Ibid., p. 221.
20. Ibid., p. 209.
21. Ibid., pp. 210-211.
22. "Putin: cyber espionage is direct violation of states sovereignty," Interfax News Agency, in English, July 11, 2014.
23. "Putin: Foreign partners using every tool for Russian deterrence (Part 2)," Interfax News Agency, in English, March 26, 2015.
24. "Some nations use information systems as 'soft force' tool to serve their interests – Putin," Interfax News Agency, in English, October 1, 2014.
25. Ibid.
26. "Russia will lawfully shut down extremist, xenophobic, terror, child porn websites – Putin," Interfax News Agency, in English, October 1, 2014.
27. "Western Military District Communication Specialists Repel Hypothetical Enemy Cyber Attack during Union Shield-2015 Exercise," Ministry of Defence of the Russian Federation, September 15, 2015, available from <http://mil.ru/index.htm>.
28. "Kaspersky Lab to continue work on Ukrainian market after introduction of sanctions – company," Interfax News Agency, in English, September 17, 2015.

29. "Authorities are not considering Russia's disconnection from Internet—Communications Minister (Part 2)," Interfax News Agency, in English, October 21, 2015.

30. "Russian Foreign Ministry calls claims of Russian subs threatening undersea cables part of information campaign," Interfax News Agency, in English, October 27, 2015.

31. Grigoriy Vokin, "Remote Custodian. Warheads with Artificial Intelligence Could Be Used for Reconnaissance, Guaranteed Destruction of Targets, and Human Rescue," *Voyenno-Promyshlennyy Kuryer Online (Military-Industrial Courier Online)*, November 10, 2015, available from <http://vpk-news.ru/>.

32. Peter Hobson, "Russia Restricts Use of Foreign Software in Battle for 'Information Sovereignty'," *The Moscow Times*, November 20, 2015, available from <https://themoscowtimes.com/articles/russia-restricts-use-of-foreign-software-in-battle-for-information-sovereignty-50861>.

33. Andrey Soldatov and Irina Borogan, "Why Are We Now Being Monitored More?" *Yezhednevnyy Zhurnal (Daily Journal)*, December 20, 2012.

34. *Ibid.*; Soldatov and Borogan, *The Red Web*.

35. "Putin urges FSB to pay attention to counterintelligence, resistance to cyber crime," Interfax News Agency, in English, December 28, 2012.

36. Unattributed report, "A State Duma Committee Has Approved Amendments Relating to Information Security," *RIA Novosti Online*, November 8, 2013.

37. "Concept of Public Security in the Russian Federation," President of Russia, November 20, 2013, available from <http://kremlin.ru/acts/news/19653>.

38. *Concept of Strategy of Cyber Security of the Russian Federation*, Moscow, Russia: Government of the Russian Federation, January 10, 2014.

39. Artem Lunkov, "Catching with Worldwide Web. Plans to Involve Active Internet Users in the Fight against Online Crime," *Novyye Izvestiya Online (New News Online)*, January 29, 2014.

40. "CSTO to set up center dealing with cyber threats," Interfax News Agency, in English, June 25, 2014.

41. "Law on bloggers takes effect," Interfax News Agency, in English, August 1, 2014.

42. "Russian FSB's Public Council: civil society needs larger role in fighting terror propaganda," Interfax News Agency, in English, September 24, 2014.

43. "Cybercrime rate rising in Russia—Interior Ministry," Interfax News Agency, in English, January 30, 2014.

44. "Law enforcement officials search Open Russia office in Moscow," Interfax News Agency, in English, April 16, 2015.

45. Sergey Goryashko and Yelena Chernenko, "Dmitriy Rogozin Takes Up 'Smart Weapons.' Government to Get Cybersecurity Council," *Kommersant Online (The Businessman Online)*, March 11, 2015.

46. Ibid.

47. Ibid.

48. Vladimir Todorov, "Cyber Threats to be Repulsed from the Center. FSB to Establish Centers to Combat Cyber Crime," *Gazeta.ru*, March 20, 2015.

49. "Single Platform Being Created To Unify Software in Russian Defense Sector," *RIA Novosti*, April 7, 2015.

50. Ibid.

51. Anna Dolgov, "Computer Program to Trawl Social Networks for Russian Opposition Plans," *The Moscow Times*, May 19, 2015, available from <https://themoscowtimes.com/news/computer-program-to-trawl-social-networks-for-russian-opposition-plans-46659>.

52. "Putin Signs Edict on Establishing State Internet," *Gazeta.ru* (*News.ru*), May 22, 2015.

53. See the question and answer with youth by Vladimir Putin, on Rossiya 24 TV (Russia 24 TV), July 14, 2015, aired 1521 GMT.

54. "Putin: Foreign states must not resort to politics to bar Russian IT companies from entering international market," Interfax News Agency, July 14, 2015.

55. Anna Dolgov, "Putin Says He Supports 'Minimal' Internet Restrictions," *The Moscow Times*, July 15, 2015, available from <https://themoscowtimes.com/articles/putin-says-he-supports-minimal-internet-restrictions-48159>.

56. Anastasiya Golitsyna, Yelizaveta Sergina, and Petr Kozlov, "The State Wants To Control Internet Traffic Routes in the Country. This Is Necessary To Ensure the Security of the Russian Internet, Functionaries Claim," *Vedomosti Online*, February 11, 2016.

57. Eugene Gerden, "Russia to spend \$250m strengthening cyber-offensive capabilities," SC Media UK, February 4, 2016, available from <https://www.scmagazineuk.com/russia-spend-250m-strengthening-cyber-offensive-capabilities/article/1477698>.

58. *Ibid.*

59. *Ibid.*

60. *Ibid.*

61. *Ibid.*

62. Remarks by Russian Foreign Ministry representative Andrey Krutskikh, Embassy of the Russian Federation in the United Kingdom of Great Britain and Northern Ireland, in English, November 1, 2011. For an examination of the Code of Conduct and the Yekaterinburg Convention, see "Cyber Strategy: Can Russia Cope in Future Conflicts?" May 2012.

63. "Date, venue of Russian-U.S. consultations on cyber-security may be set in a week – Russian diplomat," Interfax News Agency, in English, March 30, 2016.

64. *Natsional'naya Strategiya Bezopasnosti Rossii, do 2020 Goda* (The National Security Strategy of Russia Till 2020), Moscow, Russia: Security Council of the Russian Federation, May 12, 2009.

65. A. A. Strel'tsov, *Gosudarstvennaya Informatsionnaya Politika: Osnovy Teorii* (Government Information Policy: Basic Theory), Moscow, Russia: MTsNMO 2010.

66. Vladimir Putin, "On the Russian Federation's National Security Strategy," Presidential Edict 683, Moscow, Russia: The Kremlin, December 31, 2015, secs. 13, 21, 36, 43, and 53, English translation available from <http://www.ieee.es/Galerias/fichero/OtrasPublicaciones/Internacional/2016/Russian-National-Security-Strategy-31Dec2015.pdf>.

67. Each list of topics by year was taken from the published agenda of the Lomonosov Moscow State University Institute of Information Security Conferences in Garmisch, Germany.

68. "Directive on an Agreement between the Governments of the Russian Federation and the People's Republic of China on International Information Security," Moscow, Russia: Government of the Russian Federation, May 13, 2015.

69. Ibid.

70. Ibid.

71. Ibid.

72. Ibid.

73. Ibid.

74. Ibid.

75. "U.S. military chiefs stress need to 'confront' Russian actions," Interfax News Agency, in English, May 4, 2016.

76. Ibid., August 17, 2015.

77. A. V. Kartapolov, "Lessons of Military Conflicts, Prospects for the Development of Means and Methods of Administering

Them, Direct and Indirect Actions in Contemporary International Conflicts," *Journal of the Academy of Military Science*, No. 2, 2015.

78. Denis Telmanov and Artem Kuybida, "Armed Forces: Defense Ministry Has Stormed the Internet," *Izvestiya Online (News Online)*, January 15, 2012.

79. Konstantin Sivkov, "Information is the Best Defense. Scientists Call for Sixth Technological Generation to be Adopted into the Armory," *Voyenno-Promyshlennyy Kuryer Online (Military-Industrial Courier Online)*, June 25, 2014, available from <http://vpk-news.ru/>.

80. Ibid.

81. "Russia Will Create Protection for Military Facilities Against Cyberattacks by 2017," *RIA Novosti*, January 30, 2014.

82. Aleksandr Stepanov, "Battle of the Computers," *Versiya (Version)*, May 26, 2014.

83. Sivkov, "Information is the Best Defense."

84. "Putin stresses need to develop own software," Interfax News Agency, in English, September 19, 2014.

85. As reported by Channel One TV, November 1, 2014, 1005 GMT.

86. "Shoigu: Information becomes another armed forces component," Interfax News Agency, in English, January 30, 2015.

87. "IT supremacy now factor of military force—Shoigu," Interfax News Agency, in English, March 31, 2015.

88. "Shoigu: Information becomes another armed forces component," Interfax News Agency, in English, March 28, 2015.

89. Anton Valagin, "The Ninth Company Will Become an Electronic One," *Rossiyskaya Gazeta Online (Russian News Online)*, January 26, 2015.

90. Aleksandr Stepanov, "Defense Ministry Announces Recruitment for Science Troop. Students Will be Put under Cyber Arms," *MK Online (Moscow Komsomol Online)*, April 6, 2015.

91. "Cyber nonaggression pact expected to be signed – Russian Defense Ministry (Part 2)," Interfax News Agency, in English, February 4, 2016.

92. "Command-Staff Exercises Afield are being held in the Western Military District with Four Communication Units Simultaneously," Ministry of Defence of the Russian Federation, February 4, 2016.

93. "Ironiya, Intrigan, and Fara Serve Reconnaissance," *Boevaya Vakhta*, February 19, 2016.

94. "Russia must have fully independent software for defense, space uses – Rogozin," Interfax News Agency, in English, February 20, 2016.

95. "Defense Minister General of the Army Sergei Shoygu has held Conference Calls with Armed Forces Leadership," Ministry of Defence of the Russian Federation, March 1, 2016.

96. "Western Military District Electronic Warfare Specialists Learn to Disable Radio-Controlled UAVs," Ministry of Defence of the Russian Federation, March 28, 2016.

97. "A New Cadet IT School Will Open in Saint Petersburg," Ministry of Defence of the Russian Federation, June 24, 2015.

98. Aleksey Mikhaylov and Dmitriy Balbuurov, "Shoygu Returns to Rogozin's Idea of Creating a Cyber Command Authority. The Defense Ministry is Preparing for a Full-Scale War in Cyberspace," *Izvestiya Online (News Online)*, February 12, 2013.

99. See "Scientific Research Organizations," Ministry of Defence of the Russian Federation, n.d., available from <http://eng.mil.ru/en/science/sro.htm>.

100. "Special-Purpose Space," *Zvezda (Star) TV*, April 12, 2015, aired 0655 GMT.

101. "Military unit to counter cyber threats to be created in Crimea," Interfax News Agency, in English, April 17, 2015.

102. M. A. Gareev, "On Several Characteristic Aspects of Future War," *Voennaya Mysl (Military Thought)*, No. 6, June 2003, pp. 52-59.

103. M. A. Gareev, "Strategic Deterrence: Problems and Solutions," *Krasnaya Zvezda (Red Star)*, No. 183, October 8, 2008, p. 8, available from *Eastview.com*, accessed March 17, 2010.

104. S. A. Bogdanov and V. N. Gorbunov, "On the Character of Armed Confrontation in the Twenty-First Century," *Voennaya Mysl (Military Thought)*, No. 3, 2009, pp. 2, 11.

105. *Ibid.*, p. 8.

106. S. G. Chekinov and S. A. Bogdanov, "Asymmetric Actions in Support of the Military Security of Russia," *Voennaya Mysl (Military Thought)*, No. 3, 2010, pp. 13-22.

107. *Ibid.*, pp. 19-20.

108. *Ibid.*, p. 20.

109. S. G. Chekinov and S. A. Bogdanov, "The Strategy of the Indirect Approach: Its Impact on Modern Warfare," *Voennaya Mysl (Military Thought)*, No. 6, 2011, p. 4.

110. *Ibid.*, p. 6.

111. *Ibid.*, p. 9.

112. *Ibid.*, p. 10.

113. *Ibid.*, p. 11.

114. S. G. Chekinov and S. A. Bogdanov, "Initial Periods of War and Their Impact on a Country's Preparations for a Future War," *Voennaya Mysl (Military Thought)*, No. 11, 2012, pp. 14-27.

115. Valery Gerasimov, "The Value of Science is in Foresight: New Challenges Demand Rethinking the Forms and Methods

of Carrying Out Combat Operations," *Voyenno-Promyshlennyy Kuryer (Military-Industrial Courier)*, February 26, 2013.

116. Ibid.

117. S. G. Chekinov and S. A. Bogdanov, "The Nature and Content of a New-Generation War," *Voennaya Mysl (Military Thought)*, No. 10, 2013, pp. 13-25.

118. Ibid., p. 13.

119. Ibid., p. 16.

120. Ibid., p. 20.

121. Ibid.

122. Ibid., p. 23.

123. Ibid.

124. S. G. Chekinov and S. A. Bogdanov, "The Art of War at the Beginning of the 21st Century: Issues and Opinions," *Voennaya Mysl (Military Thought)*, Vol. 1, 2015, p. 33.

125. Ibid., p. 37.

126. Ibid., p. 39.

127. K. A. V. Kartapolov, "Lessons of Military Conflicts and Prospects for the Development of Means and Methods of Conducting Them, Direct and Indirect Actions in Contemporary International Conflicts," *Vestnik Akademii Voennykh Nauk (Bulletin of the Academy of Military Science)*, No. 2, 2015, pp. 26-36.

128. Ibid., p. 29.

129. Ibid., p. 34.

130. Ibid., p. 35.

131. S. G. Chekinov and S. A. Bogdanov, "A Forecast of Future Wars: Meditation on What They Will Look Like," *Voennaya Mysl (Military Thought)*, No. 10, 2015, pp. 41-49.

132. Ibid., p. 43.

133. Ibid., p. 44.

134. Ibid.

135. Ibid., p. 45.

136. V. Slipchenko, "Information Resources and Information Confrontation: their Evolution, Role, and Place in Future War," *Armeyskiy Sbornik (Army Journal)*, No. 10, 2013, p. 52.

137. Ibid., p. 53.

138. Ibid., p. 54.

139. Ibid., p. 55.

140. Ibid., p. 53.

141. Ibid., pp. 55-56.

142. Ibid., p. 56.

143. Ibid., p. 57.

144. *Conceptual Views on the Activities of the Armed Forces of the Russian Federation in the Information Space*, Moscow, Russia: Ministry of Defence of the Russian Federation, 2011.

145. Ibid.

146. S. Leonenko, "On Reflexive Control of the Enemy," *Armeyskiy sbornik (Army Digest)*, No. 8, 1995, p. 28.

147. *Conceptual Views on the Activities of the Armed Forces of the Russian Federation in the Information Space*.

148. See "Text of Newly-Approved Russian Military Doctrine," Carnegie Endowment for International Peace, February 5, 2010, available from <http://www.carnegieendowment.org/publications/index.cfm?fa=view&id=40266>.

149. Ibid.

150. Ibid.

151. "Military Doctrine of the Russian Federation," Moscow, Russia: President of Russia, December 26, 2014, sec. 11.

152. Ibid., sec. 12.

153. Ibid., sec. 13.

154. Ibid., sec. 21.

155. Ibid., sec. 46.

156. Ibid., sec. 53.

157. Ibid., sec. 55.

158. Ibid., sec. 11.

159. A. N. Belsky and O. V. Klimenko, "Political Engineering of Color Revolutions: Ways to Keep Them in Check," *Voennaya Mysl (Military Thought)*, No. 9, 2014, pp. 3-11.

160. Ivan Petrov, "Defense Ministry Will Order Scientific Work on the Topic of 'Color Revolutions,'" *Rossiyskaya Gazeta (Russian News)*, June 19, 2015.

161. "Nuclear deterrence will give time for creation of new weapons systems—General Karakayev," Interfax News Agency, in English, December 16, 2015.

162. Konstantin Sivkov, "Essential and Sufficient: Status-6 System Leaves an Adversary No Choice," *Voyenno-Promyshlennyy Kuryer (Military-Industrial Courier)*, December 2-8, 2015.

163. I. N. Dylevsky and C. A. Komov, "Rules of Conduct in Information Space—an Alternative to an Information Arms Race," Eleventh Scientific Conference of the International Information Research Consortium, April 20-23, 2015, pp. 37-38.

164. Putin, "On the Russian Federation's National Security Strategy," sec. 36.

165. Timothy L. Thomas, *Russia Military Strategy: Impacting 21st Century Reform and Geopolitics*, Ft. Leavenworth, KS: Foreign Military Studies Office, 2015, p. 112.

166. Sivkov, "Essential and Sufficient."
167. "Secret 'Rus' Surfaces Successfully," *Argumenty Nedeli (Weekly Arguments)*, December 17, 2015.
168. David E. Hoffman, *The Dead Hand: The Untold Story of the Cold War Arms Race and Its Dangerous Legacy*, New York: Doubleday, 2009, p. 422.
169. Ibid.
170. Sam Schechner, "France Says Russians Carried Out Cyberattack," *The Wall Street Journal*, June 11, 2015, p. A6.
171. Maik Baumgaertner, Sven Roebel, Marcel Rosenback, and Joerg Schindler, "From Moscow Thieves with Love," *Der Spiegel (The Mirror)* (Electronic Ed.), December 5, 2015, p. 33.
172. Ingo Mannteufel, "Putin: Right Message for Everyone," *Frankfurter Allgemeine* (Electronic Ed.), March 1, 2016.
173. Soldatov and Borogan, *The Red Web*, p. 275.
174. Ibid., pp. 279-283.
175. Ibid., pp. 284-286.
176. Ibid., p. 260.
177. Margaret Coker and Paul Sonne, "Ukraine: Cyberwar's Hottest Front," *The Wall Street Journal*, November 9, 2015, pp. A1, A12, available from <https://www.wsj.com/articles/ukraine-cyberwars-hottest-front-1447121671>.
178. As reported by Kiev 1+1 Television, January 25, 2015, aired 1730 GMT.
179. As reported by Kiev 1+1 Television, November 13, 2015, aired 1730 GMT.
180. Ibid.

181. See Katie Collins, "Ukraine blackout is a cyberattack milestone," CNET, January 5, 2016, available from <http://www.cnet.com/news/cyberattack-causes-widespread-power-blackout-in-ukraine>.

182. See Shane Harris, "CIA Eyes Russian Hackers in 'Blackout' Attack," Daily Beast, January 6, 2016, available from <http://thedailybeast.com/articles/2016/01/06/exclusive-cia-eyes-russian-hackers-in-blackout-attack.html>.

183. "APT28: A Window into Russia's Cyber Espionage Operations?" FireEye, October 27, 2014, available from <https://www.fireeye.com/blog/threat-research/2014/10/apt28-a-window-into-russias-cyber-espionage-operations.html>.

184. Ibid.

185. Jason Lewis, "Operation Armageddon: Cyber Espionage as a Strategic Component of Russian Modern Warfare," Looking-Glass Cyber Threat Intelligence Group, April 28, 2015.

CHAPTER 13. RUSSIAN NAVAL POWER UNDER VLADIMIR PUTIN

Jacob W. Kipp

That any potentate who has just ground forces has only one arm, where he who also has a navy, has two arms.

—Peter I

Everywhere respected and revered home of the Navy, for its enormous services to the Fatherland, it is rightly considered the pride of Russia.

—President Vladimir Putin at Navy Day
Celebration at Baltiysk on July 26, 2015.²

VLADIMIR PUTIN, PETER THE GREAT, AND THE NAVY

In the late 1960s, I was starting my long fascination with the Russian Navy beginning with Russian naval reform after the Crimean War. Historian George Yaney, after reading several chapters and encouraging my work, asked what would prove to be a profound and perplexing question. Why should the Navy, a marginal institution in the history of the Russian state, have so many officials so prominently involved in the most important social engineering in Russian history between Peter I's "Westernization" and the Bolshevik Revolution? Certainly, in comparison with the Russian Army, the Navy was a marginal institution in terms of personnel, state funding, and military impact on the future of the state and society.

My answer at that time was to acknowledge the fact that, from its founding, the Navy was a marginal institution. In periodic crises associated with government finances or naval disasters, the same question

would be asked: Does Russia need a navy? (*Nuzhen li flot Rossii?*) The civilians, soldiers, and naval officers who were asked that question usually replied with qualifying answers, which included “cheaper” by officials connected to the Ministry of Finances; “smaller, cheaper, and coastal defense” by Army officers; and, “oceanic, cruiser, or balanced” by naval officers. From the middle of the 19th century, the answer would involve an assessment of the naval threats to Russia in key maritime theaters (first in the Baltic Sea, then in the Black Sea, then the Pacific Ocean, and finally in the Barents Sea and Arctic Ocean). This would show an appreciation of what the Navy might provide in terms of support for the maritime flanks of Army operations, and some appreciation of the industrial and scientific infrastructure to maintain a modern naval force.

Navies need to be maintained while armies can be raised. Large state enterprises or private ones living off state contracts have to exist. For most of its history, the Russian Navy has had to rely upon the support of the central state, often authoritarian, with very little popular support.

Indeed, in 1993, in celebration of the 145th anniversary of the founding of *Morskoi Sbornik*, the Navy’s professional journal, its editors published a series of articles from the journal on exactly this topic from the 1850s to the 1990s. The authors included Captain First Rank Ivan Shestakov, writing in 1858 in the wake of the defeat in the Crimean War in the article “Old Thoughts on a New Matter” that stated: “The existence of the Navy in Russia is considered by many to be something of a burden, unnatural and unnecessary to the needs of the state, in short, a caprice.”³ Shestakov made the case for peacetime investment in building and maintaining ships, crews, and infrastructure at a time of

rapid change in the instruments of naval power. He stressed the need for long-range cruises to shape officers and men. Several articles were devoted to the fate of the Navy following the Russo-Japanese War, when the Russian Navy, except for the Black Sea Fleet, was annihilated by the Imperial Japanese Navy.

These articles were devoted to the efforts by naval reformers to justify the rebuilding of the Navy by relating such reconstruction to the importance of the “naval concept to the Russian state,” the justification for Russia having a navy, and the specific sort of navy Russia should acquire in the context of the foreign policy challenges before the Empire. These choices reflected the post-Soviet atmosphere in the country and the Navy. The author of the article, “What Sort of Navy Does Russia Need,” was none other than Admiral Aleksandr Kolchak, commander of the Black Sea Fleet during World War I, who became a leader of the White Movement in its unsuccessful struggle against the Bolsheviks.⁴ His appearance as a respected naval leader would have been impossible during Soviet times. The final article on the Navy’s recovery before World War I was devoted to the State Duma debates in June 1912 on the “Small Shipbuilding Program,” which was approved. It laid the foundation for the modernization of both the Baltic and Black Seas Fleets and gave political legitimacy to the Navy and its programs beyond the sponsorship of Russia’s autocrat.⁵ However, it also marked the clear subordination of both fleets to Stavka, the high command, in wartime.

The editors made very interesting choices on what they highlighted about the fate of the Navy in the Soviet and post-Soviet periods. The three essays looked at prospects for the Navy in 1922 in the aftermath of World War I, the Bolshevik Revolution, and the

Civil War when the Navy was part of the Red Army of Workers and Peasants. In 1973, Commander in Chief (C-in-C) of the Soviet Navy Admiral of the Soviet Fleet Sergei Gorshkov saw the objective as the creation of a Soviet nuclear, oceanic navy. Later, Deputy C-in-C of the Russian Navy, Admiral of Fleet Ivan M. Kapitanev, Russian Navy (Retired), saw the beginning of the post-Soviet period of the Russian Navy.⁶ He focused on the weaknesses of Gorshkov's navy in terms of scientific-technical innovation and poorly developed infrastructure for capital repairs. At the same time, even with the end of the Cold War, he emphasized the importance of the Navy to maintaining Russia's status as a great power, even as circumstances pointed to a steep decline in capabilities.

Today it seems that Russia has lost its position as a great naval power and if situation continues to develop as it has over the last few years the combat capabilities of our navy will suffer serious damage. And that cannot be permitted.⁷

There were no articles in the series devoted to the Navy at war: the tsarist navy during the Crimean War, the Russo-Turkish War, the Russo-Japanese War, or World War I, or the Soviet Navy during the Civil War, Winter War, or the Great Patriotic War.

The editors effectively chose to make Gorshkov's nuclear oceanic navy of the Cold War the foundation of the newly created navy of the Russian Federation, thereby emphasizing continuity at a time of a very different state order, society, and international environment. Even during Mikhail Gorbachev's *Perestroika*, the naval elite continued to see the primary maritime threat to Russia to be the U.S. Navy. Vice Admiral K. A. Stalbo, Chief of the Naval Technical Committee

for 15 years under Gorshkov, wrote in 1990 about the role of the U.S. Navy in achieving the foreign policy goals of Washington, which Stalbo described as command of the world ocean and the resources in it.⁸ By the late Soviet period, considerations associated with strategic arms control were influencing the fate of the Navy's strategic nuclear forces. On August 6, 1991, as if executing "the swan song" of the Soviet Navy, K-407 *Novomoskovsk*, a *Delta IV*-class ballistic missile nuclear submarine (SSBN) armed with 16 Sineva missiles successfully executed Operation BEGEMOT-2, the salvo launching of all of its missiles.⁹ In 1989, the Soviet Navy had attempted BEGEMOT-1 without success. The naval leadership had persisted because at issue was the question of whether SSBNs would remain part of the triad of strategic forces. Salvo fire of multiple independently targetable re-entry vehicle (MIRV) submarine launched ballistic missiles (SLBMs) provided a solid justification for a continued investment in a submarine leg to the triad.¹⁰

Members of the General Staff did not necessarily agree with the Navy's view of its own importance. They certainly saw the United States and its allies as the dominant military powers, but were more focused on defending Russia's periphery and saw the Army as the primary instrument of national military power. General of the Army Makhmut Gareev, former head of the Directorate for Military Sciences of the General Staff and later president of the newly created Academy of Military Sciences, accepted the continued importance of SSBNs armed with nuclear weapons as part of the "Troika" for strategic deterrence. However, he downplayed the role of surface warships and aircraft carriers, dismissing the *Kiev*-class aircraft-carrying VSTOL cruisers as of limited value as anti-submarine

warfare (ASW) platforms and completely ignoring the *Admiral Kuznetsov* heavy aircraft-carrying cruiser, which had entered service in 1991 and deployed in November 1991 to the Northern Fleet to avoid confiscation by the newly-established Ukrainian Government. The *Admiral Kuznetsov* made its first long-range cruise as part of a task force to the Mediterranean in 1995. In 1996, it went into dry dock for major repairs in Murmansk and remained there for lack of funding to complete the work. Gareev expressed his doubts about the future prospect for Russian carriers: "In the forthcoming decades Russia will hardly be able to build any more attack aircraft carriers."¹¹ In this observation, he has been proven quite correct.

Three years after the publication of his book on the threat posed by the U.S. Navy and 2 years after the collapse of the Soviet Union, Vice Admiral Stalbo fired a shot at the government of President Boris Yeltsin for its failure to protect Russia's strategic interests in Crimea. His article, "Crime of the Century: Object and Accomplices," appeared in April 1993, 1 month after the commemorative issue of *Morskoi Sbornik*. He accused the government of the Russian Federation of complicity in accepting the 1954 transfer of the Crimean peninsula to Ukraine in what he referred to as a form of "forced deportation" of Russian citizens from their homeland by the Soviet Government under the leadership of Nikita Khrushchev. The Admiral names Khrushchev's accomplices in this crime as "[Kliment] Voroshilov, [Mikhail] Suslov, [Lazar] Kaganovich, [Dmitri] Kirichenko, and other members of the Presidium of the Central Committee of the CPSU [Communist Party of the Soviet Union]." The logic involved no compelling state interests, only Khrushchev's desire to do

something special to celebrate the 300th anniversary of the union of Russia and the Ukraine.¹²

However, Crimea had not been part of that unification; it had been acquired over centuries of struggle with the Crimean khans and had been central to the establishment of Russian naval power in the Black Sea by the end of the 18th century. This led Stalbo to the second crime of the century: the division of the Black Sea Fleet with Ukraine after the collapse of the Soviet Union as agreed to by the Yeltsin government, which represented a betrayal of the Black Sea Fleet and of the Russian population in Crimea.

For Stalbo, the Black Sea Fleet was his “navy.” Typical for those of his generation borne on the eve of World War I and growing up during war, revolution, the New Economic Policy (NEP), and Stalinist industrialization and collectivization, Stalbo found himself engaged in factory work before getting admitted to the Frunze Naval School in Leningrad where he studied to become a submariner. In 1936, he began service in the Pacific Fleet as a navigator on submarine M-15. In the military purge of those years, Stalbo was arrested in 1938 and imprisoned until 1939, when he was released and assigned to the Nakhimov Higher Naval School in Sevastopol in 1940 as an instructor. When war came, he served with the Black Sea Fleet, but as a naval infantry officer fighting in the Caucasus, taking part in the defense of the fleet’s temporary base at Novorossiysk as part of the 47th Army, then under the command of Rear Admiral Sergei Gorshkov. In 1944, following the liberation of Crimea, Stalbo served as Deputy Chief of Staff for the Crimea Defense District. During this period, he became a close protégé of Rear Admiral Sergei Gorshkov. Both men were involved in the reconstruction of the Black Sea Fleet after the Great Patriotic War. In

1948, Gorshkov became Chief of Staff of the Black Sea Fleet and then C-in-C of the Black Sea Fleet. Stalbo, following his graduation from the Voroshilov Academy of the General Staff as a Gold Medalist, returned to the Black Sea Fleet in 1952 as Chief of Operations Directorate with the rank of Rear Admiral.¹³

Stalbo saw in the events of June 1993, the agreement for the division of the Black Sea Fleet between Russia and Ukraine, as a betrayal of the Navy's interests and those of the Russian people. President Yeltsin was guilty of trying to buy-off President Leonid Kravchuk, whom Stalbo described as a xenophobic and ethnocentric enemy of Russia, a true "Russophobe." Stalbo warned, "This is a dangerous policy. The officers of the Black Sea fleet, and many Crimeans regard the decision on the division of the fleet as a betrayal."¹⁴ He went on to recall the revolutionary history of the Black Sea Fleet in 1905-1906 and stated: "The Black Sea Fleet, as history has shown, can take its own destiny into its own hands. But why bring the matter to extremes?"¹⁵ Stalbo wrote during the stormy period of confrontation between Yeltsin's presidency and the Russian Parliament, which led to revolt and its suppression in the fall. Stalbo, as an enemy of the Russian President, became thereafter a non-person, excluded from the pages of the Navy's official biographic dictionary published in 1995.¹⁶

Crimea remained an item of negotiation between Kyiv and Moscow until May 28, 1997, when a treaty established a 10-year lease with a possible extension for another 10 years for the Russian Navy to use the facilities at Sevastopol and divided the Soviet Black Sea Fleet into the Russian and Ukrainian Black Sea Fleets.¹⁷ In the process, the Black Sea Fleet became a subject of patriotic agitation among Russian and

Ukrainian nationalists. Moscow's Mayor Yury Luzhkov, positioning himself to run for President of Russia, made assistance to the Black Sea Fleet, its sailors, and the Russian Diaspora in Crimea concerns for the city of Moscow.¹⁸ Indeed, Russian minorities living in what Moscow called "the near abroad" became a major concern in Russia's first published military doctrine in November 1992 and in public discussions relating to the withdrawal of Russian forces from successor states and the fate of the Russian Diaspora.¹⁹

By emphasizing the last 145 years since the Crimean War, the editors of *Morskoi Sbornik* had sought to cast light upon certain questions associated with the various transformations. These related to the technological basis of naval power, the missions the various fleets (Baltic, Black, Pacific, and Northern) would be expected to perform, the probable opponents each fleet might expect to confront, and the tasks that the naval high command would expect each fleet to perform. Stalbo had invoked a more radical disconnect arising out of the origins and history of each fleet against the panorama of the history of the Russian state.

The truth is that the history of the Navy has to be written in terms of each of its fleets, which include their own narratives involving different foundations, different threats, different policy objectives, and different and complex relations with the central state apparatus. That is still true today. The unstated assumption was that Russia's continental extent and the relative isolation of each naval theater from other theaters would mean that grand strategy would be shaped over time by the Ministry of War, the People's Commissariat of Defense, and the Ministry of Defense in conjunction with the General Staff, as the "brain of the armed forces" and the "sovereign," whether tsar, commissar,

or president. This had not been the intended result of Gorshkov's oceanic navy with its strategic nuclear capabilities. However, by the mid-1990s, that seemed a lost dream.

What this means is that the history of the Navy has been caught up in the history of the Russian state and society since its founding in October 1696 by Peter the Great. Peter's transformation of Russia, including the creation of a navy, has been controversial. Peter accelerated and gave direction to a process known as "Westernization," i.e., adopting and adapting West European institutions to create a stronger autocratic state. The state, it was assumed, had the responsibility to reshape society to its needs.

Regarding the reforms of Peter I, the calculus remains ambiguous: whether it was necessary to forcibly shave beards, to dress boyars in European fashion, to make them drink tea and coffee, to force them to write letters and numbers in a different way? In a word—whether or not it necessary to force Russia to adopt European culture? We, the educated people, are able to understand that any surgical operation is only of benefit if it heals the sick, but at the same time greatest stress can injury the body. And sometimes it is simply impossible to save the patients' lives in any other way. Likewise, the best possible intentions of reform, which would have passed without any injury to the public. And the sovereign has to weigh which is the lesser evil: traumatize society by changes, or leave everything as is.²⁰

Thus, a contemporary author framed the historic dispute between Russian Slavophiles and Westernizers. Peter the Great was the father of modern Russia, who brought it into Europe as great power, or destroyed the historic foundations of Muscovite Russia, weakened the influence of traditional Russian culture and religion, and made its population into

servants of the state. Naval affairs were an alien pursuit for the Russian state before Peter. He sought to make it into a core element of national power. Peter visited and even worked in foreign shipyards, studied foreign warship designs, and recruited foreign naval officers for Russian service. Peter could appreciate the scale of enterprise that a standing navy required in terms of procurement of raw materials, the aging of wood for ship construction, the yards and works, the manpower to staff such yards, the sailors to man the ships, the officers to command them, the charts to guide them, shore facilities to feed and support them, and the currency to fund the enterprise.²¹ From Peter the Great forward, tsarist Russia and any successor states would have to adapt to a dynamic and changing world shaped by a West that was transforming the world via its maritime supremacy.²² Russia announced its claim to being a maritime power by its victory in the Northern War and the presence of its fleet in the Baltic. By the early 18th century, European hegemony had extended into science and mathematics, and Russia would be obliged to respond, which it did under Peter who brought Newton to Russia and created its Academy of Sciences in St. Petersburg.²³

Putin is a son of Leningrad/St. Petersburg. In that regard, he appreciates Alexander Pushkin's Bronze Horseman—the figure of Peter the Great, who founded the city, turned a swamp into a European capital, and opened Russia's window on the West, but at a great cost to those who had to build that city.²⁴ His family was there during the blockade and siege in 1941-1944. His father, Vladimir Spiridonovich Putin, fought and was wounded. The family often starved and lost a son, Viktor Vladimirovich Putin, who died from diphtheria.

Born in 1952, Putin belongs to the generation raised on the “myths” of the Great Patriotic War, not as just Soviet propaganda but also family tales of survival and endurance.²⁵ In his case, his father’s tales were about duty with a People’s Commissariat for Internal Affairs (NKVD) demolition-sabotage unit. Like most veterans, Putin’s father seldom talked about the war.²⁶ Putin has recounted what his parents had to say. There was the trauma of not knowing where their dead son was buried. Putin was born at a time when the city was recovering from the trauma of protracted siege. Veterans and evacuees had returned, and reconstruction was under way. The chronic postwar rationing was ending, and life was slowly coming back to “normal,” if there was such a thing during Joseph Stalin’s last years. Putin was a child during Khrushchev’s de-Stalinization process, and he was a young man when Leonid Brezhnev and Richard Nixon were practicing detente. As a student at Leningrad State University in the early 1970s, Putin studied law and on graduation turned to a career in Soviet intelligence service (KGB), joining the external service, and serving as an operative in Dresden in the German Democratic Republic (GDR). He was a “warrior” in the Cold War during its last decade and witnessed the end of Soviet hegemony in Eastern Europe first hand.

In his first years as President, Putin kept one bust on his desk—that of Peter the Great, the great transformer who gave Russia a standing Army and its Navy. Putin could appreciate the personal seal of Peter the Great, which showed a kneeling tsar carving a stone statue of Russia, which he was bringing to life. Above the scene was the all-seeing eye of reason and on the lake in the background the *Botik* (boat) of Peter the Great.²⁷ Peter sought maritime and military talent and expertise where he could find them and mobilized his own

subjects to serve as officers and sailors. The navy was part of Peter's greatest enterprise, the "service state," where all were obliged to serve.²⁸ Putin left St. Petersburg for Moscow the same year that the Russian Navy celebrated its 300th anniversary, an event shaped by a sense of hardship, endurance, and survival, as well as recovery of its past.

Putin will have been the de facto or de jure sovereign of Russia for 17 years. Some of that time, he was the "gray cardinal" in the Kremlin, exercising power nominally in the hands of others to whom he was formally subordinated. Against the historical backdrop of tsarist Russia and the Soviet Union, this is a moderately long tenure. Putin has been in power longer than Nikita Khrushchev (1953-1964). In 2019, he will have been leader as long as Leonid Brezhnev (1964-1982). The only other Soviet leader whose tenure was longer was Joseph Stalin (1924-1953). Nicholas II, the last of the Romanovs, was tsar for 23 years, and his father, Alexander III, for only 13 years (1881-1894). It is worth noting the observations of Gorshkov about his interactions with two Soviet leaders (Khrushchev and Brezhnev) late in their tenures, when both men became the objects of "cults of personality."

It is to be regretted that neither N. S. Khrushchev nor L. I. Brezhnev in the later years of their leadership could forego the exaltation of their persons during ostentatious visits to republics, cities, and military units.²⁹

Putin has maintained remarkable levels of public approval, even during 2 years of sanctions and economic difficulties, but authoritarian systems do tempt leaders and followers to create such cults.³⁰

For good or ill, one can speak of an age of Putin. He has left his mark on domestic policy, foreign policy,

national ideology, and defense policy. In the area of military reform and development, it is appropriate to speak of the current Russian military as being shaped by the policies of his government. This is particularly true for the Russian Navy. He inherited a Navy in disarray and oversaw its reconstruction as an instrument of national power. Moreover, he has shown himself to be very adept in the judicious application of all the instruments of national power, both hard and soft, to achieve specific objectives when opportunities have arisen. Neither has he been averse to risk.

Putin is the first Russian ruler since Nicholas II who was a child of Peter I's "window on the West." St. Petersburg/Leningrad is one of the Russian cities most influenced by the navy and its infrastructure. The Admiralty's gold spire dominates the Neva embankment at the foot of Nevsky Prospect. Peter's city, along with Sevastopol, Vladivostok, Murmansk/Severodvinsk, Kaliningrad/Baltiysk, Petropavlovsk-Kamchatsky/Rybachiy, and Astrakhan, are the locations of major naval bases and associated naval infrastructure. St. Petersburg and the naval base/fortress at Kronstadt can claim to be the birthplace of Russian sea power. It is where science and technology came together to build warships from the age of sail to the nuclear age.³¹

Putin did not turn toward a career in the Navy but chose a career in the competent organs of state security, which in St. Petersburg is located in the Big House, Building No. 4, on Liteinyi Prospect, not too far from the location of the Cannon Foundry Yard, for which the street and the bridge are named. His service in the foreign intelligence apparatus of the KGB made him probably the most cosmopolitan ruler that Russia has had since Vladimir Lenin. Indeed, based upon

his service in Dresden and his knowledge of German, Putin's German biographer, Alexander Rahr, entitled his book: *Vladimir Putin: The German in the Kremlin*.³² In his first speech to the Bundestag as President of Russia on September 25, 2001, he spoke in German, or as he said, "in der Sprache von Goethe, Schiller und Kant [in the language of Goethe, Schiller, and Kant]."³³

For Putin, the calculation has never been ambiguous. He belongs among those who have seen a strong, centralized state as the necessary guiding force for Russian society and civilization. Putin's worldview in keeping with a career in the external service of the KGB was shaped by *raison d'état* and *realpolitik*. This did not exclude the application of soft power where it might be useful, but Russia could not afford to be perceived as weak in the new world order where Washington saw itself as "the indispensable nation" with military forces to shape the world to its ends. That is not to say that Putin did not see positive benefits in some of the internal reforms of the 1990s. By the end of that decade, Putin was deeply concerned about the internal and external weaknesses of the Russian state as manifested by the continuing challenge to Russian sovereignty in the North Caucasus and the blatant disregard for Russian interests in the near abroad. This was demonstrated by the North Atlantic Treaty Organization's (NATO) continuing expansion and its assumption of the right to conduct out-of-area operations, even in regions considered by Moscow to be in its traditional sphere of interest. By 1999, many of the national security elite of the Russian state shared this sentiment.

In 1996, Putin moved from St. Petersburg to Moscow, rose rapidly to become a confidant of the Yeltsin family, and advanced to a position of leadership

within the intelligence and national security policy communities. In July 1998, President Yeltsin appointed Putin head of the FSB, and in March 1999, during NATO's intervention in Yugoslavia, he appointed him Secretary of the Security Council of the Russian Federation. During the same month, the situation in Chechnya, which had been in a state of ceasefire since 1996, deteriorated rapidly with Islamic radicals not loyal to the recognized Chechen Government kidnapping Major-General Gennady Nikolaevich Shpigun, the Ministry of Internal Affairs Special Envoy to Chechnya, and demanding a ransom for his release. This confirmed to the Russian leader that President Aslan Maskhadov could no longer control Chechnya.³⁴

In the leadership crisis that developed with the attempt to impeach President Yeltsin in April-May 1999 and ending with the replacement of Yevgeny Primakov as Prime Minister with Sergei Stepashin, Putin emerged as a major player in national security policy.³⁵ Putin played a key role in the Russian military's response to NATO's operations in his capacity as Secretary of the Security Council. These actions included the decision to modernize the Russian nuclear arsenal, and to support the *démarche* of Russian troops assigned to the Stabilization Force in Bosnia and Herzegovina (SFOR) to deploy from Ugljevik, Bosnia, to Pristina, Kosovo, by way of Yugoslavia. He also provided for the approval for Zapad-99, the first strategic command and staff exercise conducted by the Russian General Staff since the end of the Cold War.³⁶ Zapad-99 also included the first simulated use of Russian nuclear forces to break up NATO's initial air operation by employing long-range aviation against carriers and airfields.³⁷ At the same time, the Security Council under Putin's leadership was addressing the

increased violence in the North Caucasus, especially Chechnya.³⁸ This complex of security crises facing Russia culminated in August with the outbreak of the second Chechen war. This event ensured Putin's rise in power: first, as acting Prime Minister; next, as Prime Minister; then, as acting President; and finally, beginning in May 2000, as President. Putin, in alliance with other *Silovniki*, gambled on an all-out military victory as the way to stabilize Chechnya and the Caucasus.³⁹

RUSSIAN NAVAL POWER IN HISTORICAL PERSPECTIVE: CYCLE OF DEVELOPMENT AND DECLINE

The year Putin left St. Petersburg for Moscow, the Russian capital was in the midst of celebrating the 300th anniversary of the birth of its Navy, when on October 30, 1696, at the urging of Peter I, the Boyarskaia Duma voted to establish a standing Russian Navy. In 1996, the celebration came at a time when the Navy was still in shock from the collapse of the Soviet Union and its military. At the end of the Gorshkov era, the Soviet Navy had 1,561 commissioned warships of all classes, making it the second-largest navy in the world, just behind the U.S. Navy. There was a slow decline in the size of the Navy in the late 1980s, which became catastrophic with the collapse of the Soviet Union. Gorshkov's testament was his book, *Sea Power of the State*, which appeared in 1976 and encapsulated his theory of Soviet oceanic sea power in the nuclear age. Gorshkov spoke of the need for a balanced fleet, but he emphasized the centrality of the Navy's nuclear forces in maintaining strategic stability. He also emphasized the need for the "scientific" management of naval development and that this must involve funding to support

naval modernization. Given the nature of the Soviet military system with a unified Ministry of Defense and a General Staff, which was supposed to serve as “the brain of the Armed Forces,” Gorshkov’s volume was stunning for its silence on the role of that guiding institution.⁴⁰

The volume was significant enough to be translated by the U.S. Naval Institute, which appeared in 1979. That same year, a second edition of *Sea Power of the State* was published. A new forward was added to the book, and there was more attention to military doctrine with appropriate quotes from Mikhail Frunze about the need for all services to function under a “unified military doctrine of the Red Army.”⁴¹ The emphasis was still upon the nuclear submarine as the capital ship of the modern navy, but Gorshkov also spoke of a dialectical struggle between the offensive potential of such vessels and the anti-submarine warfare struggle against them.⁴² Gorshkov anticipated a continuing transformation of the systems supporting combat at sea. Gorshkov predicted that the imperialist enemies would seek to use sea power against the shore, but he concluded that imperialism would fail because the wise leader of the Communist Party would ensure the success of the Soviet economy.⁴³ Gorshkov had made a career out of his connections with Soviet military and industrial leaders from the Great Patriotic War. Now in the late 1970s, new and younger leaders were emerging with their own military priorities. One of those was General Nikolai Ogarkov, who became Chief of the General Staff in 1977 and emerged as an outstanding proponent of the concept of a Revolution in Military Affairs, which he saw as transforming conventional theater warfare by means of automated command and

control and the development of reconnaissance strike and reconnaissance fire complexes.⁴⁴

By the early 1980s, the question facing the Russian Navy was what direction naval development would take. Indeed, the 1980s were very much like the 1890s with regard to the question of where naval modernization would go. Both decades were at the end of major periods of rapid naval modernization and little actual combat experience of fleet versus fleet conflicts. The last major naval battle at sea had happened at Sinope, Turkey, in 1853 when Russian and Turkish sailing fleets fought, and the Russians won. During the rest of the Crimean War, the allied navies deployed large, screw-propelled forces to the Black and Baltic Seas, but the Russians, lacking such ships, refused to engage. The American Civil War saw no major fleet engagements but a good deal of blockading and riverine warfare. There were, of course, rapid advances in naval technology, including the development of floating ironclad batteries; screw-propelled ironclads; turreted monitors; contact mines; spar, towed, and self-propelled torpedoes; naval artillery (rifled guns, breech loading cannons, and smokeless powder); compartmented hulls; electric lighting; and, the wireless telegraph.

The only large European naval battle that occurred in the time between the Sinope battle and the 1890s was the Battle of Lissa in July 1866 between the Italian and Austrian Fleets near the Island of Lissa in the Adriatic. This was a fleet engagement involving ironclads and sailing ships on both sides, with Admiral Wilhelm von Tegetthoff, the Austrian commander, deploying as a wedge against the Italian battle line. Lack of unity of command undermined the superior position of the larger Italian Fleet, which lost two ironclads. Both

sides employed ramming tactics with mixed success. The modest success of these ramming efforts made the ram part of naval capital ship design down to the loss of HMS *Victoria* in 1892, when rammed by HMS *Campy* during fleet maneuvers in the Mediterranean. What was unclear about fleet naval tactics and warship design in 1890 became very clear after a decade of major fleet engagements, culminating in the utter defeat of Russia's Second Pacific Squadron by Admiral Heihachiro Togo's Japanese Imperial Navy in the Battle of Tsushima Straits in May 1905.

Between the end of World War II and the destruction of the Japanese Imperial Navy by the U.S. Navy in 1945, there had been another period of rapid technological development in naval affairs but no fleet versus fleet naval actions. Navies were recognized as strategic forces capable of carrying out powerful strikes against the shore in local wars. Nuclear weapons and nuclear propulsion were added to surface ships and submarines. The carrier, which had emerged as the new capital ship, grew in size and received several generations of modern jet aircraft. Ballistic missiles on nuclear-powered submarines became part of a strategic nuclear triad that included strategic bombers and land-based intercontinental ballistic missiles (ICBMs). Cruise missiles and air defense missiles joined the world's navies. Electronic warfare became a major concern. For almost 3 decades, Cold War navies had engaged in naval presence and suasion, conducted operations against the shore, but had no fleet versus fleet combat. For 3 decades, there was no clear idea what such modern naval warfare would be like. That changed in early 1982, when Argentina invaded the Falkland Islands, and the British Government mounted a campaign to retake them.

Argentina's junta had acted on the assumption that the military *fait accompli* would be followed by political negotiations with Great Britain. When the Margaret Thatcher government mobilized for war in the South Atlantic, Argentina found itself in a war for which it had not prepared but had to fight. The great majority of Soviet press coverage of the Anglo-Argentine conflict addressed the war as another example of the contradictions of imperialism and spoke of a struggle over offshore oil and gas fields as the proximate cause.⁴⁵ However, Russian naval officers saw the conflict as a new turn in local wars, where naval forces from both sides would play a central role, and where new technologies would be used on a new scale.⁴⁶ The first articles by naval specialists appeared in newspapers. The first such article appeared on April 26, 1982, addressing the arrival of the Royal Navy off the Falklands and the situation confronting the invading force. The author, Vice Admiral A. M. Gontaev, was an experienced Soviet submariner. He addressed the opposing orders of battle at sea and in the air, noting the British declaration of an exclusion zone of 200 miles around the Falklands, and paid particular attention to the presence of four British submarines (two diesel and two nuclear) with the British Fleet.⁴⁷ This was several days before the torpedo attack by HMS *Conqueror*, a British nuclear submarine, against the Argentine Cruiser *General Belgrano* (former USS *Phoenix*). The cruiser, which was not at battle station, sank outside the 200-mile exclusion zone on May 2, 1982, with the loss of 323 sailors.

On May 23, Vice Admiral Kazimir Andreevich Stalbo, Chairman of the Navy's Scientific-Technical Committee (which was directly subordinate to the C-in-C of Admiral Gorshkov), authored a lengthy article in *Krasnaia zvezda* on the importance of studying

the Falklands War for discerning trends in the development of naval art and science.⁴⁸ Thereafter, *Morskoi Sbornik* published a series of in-depth articles by senior officers in the fall of 1982 and the spring of 1983. These addressed the lessons to be learned from the role of surface ships in naval combat; the tactics of shore-based aviation against an invasion fleet; the capabilities of VSTOL carrier aircraft in defense of a task force and for strikes against the shore; the role of electronic warfare and precision strike systems, especially the French Exocet anti-ship missile launched by the Argentines from aircraft and ground launchers against Royal Navy combatants; and, the problem of creating a “mobile rear” to provide logistic support for a trans-oceanic invasion force. The series left no doubt that the Falklands had been the first instance of modern naval warfare since World War II.⁴⁹ All of these topics were relevant to possible Soviet operations in a conflict with the United States and its allies.

These issues, however, emerged at a time when the Soviet state was already mired in a counterinsurgency war in Afghanistan; facing political instability in its Polish ally; and, dealing with a crisis over NATO’s response to the Soviet deployment of the SS-20/SS-28 Sabar, a solid-fueled, multi-range ballistic missile (MRBM) capable of carrying three multiple intermediate range missile (MIRM) warheads with greater accuracy. NATO had responded with negotiations on the removal of the SS-20s or a military response involving the deployment of nuclear-capable Pershing II MRBMs and ground launched cruise missiles (GLCMs) to Europe. This new Cold War after a decade of detente came at a time when the Soviet state faced a deep and protracted leadership vacuum and societal crisis brought on by a militarized society, which lacked the

means for economic rejuvenation. The Ronald Reagan defense build-up and the commitment to create a viable system of missile defense under the Strategic Defense Initiative forced the Soviet leadership to reconsider defense priorities. This was done in the midst of a protracted succession after the death of Brezhnev and at a time when the Soviet leadership was concerned about the possibility of a U.S. first strike in a nuclear war.⁵⁰

The Navy, as in the past, was seen as a luxury that a continental power now could not afford. Gorshkov's swan song was an article for *Navy Day* in July 1985 on the navy as "the Oceanic Shield of the Motherland." Recalling the Soviet Navy's role in supporting Soviet ground forces during the Great Patriotic War, Gorshkov stressed the oceanic challenge posed by NATO's naval forces, especially SSBNs and carrier task forces.⁵¹ In 1985, Gorshkov went into retirement in the Inspectorate of the Ministry of Defense, and spent his last years (1985-1988) at his dacha, visited by former colleagues and writing his memoirs, which appeared in 1996.⁵²

He collaborated with former colleagues in seeking to shape the intellectual debate about the future of the Navy. He served as editor on *The Navy: Role, Perspectives of Development, and Utilization*, which appeared in 1988.⁵³ In 1987, this routine was interrupted by the appearance of articles in the Soviet press about a reform of military doctrine to embrace the concept of "defensive defense."⁵⁴ Gorshkov and naval historian N. P. Viunenko wrote a brief essay in response: "The Conception of the Development of the Navy" which encompassed what Gorshkov said were the chief lessons of his own tenure and ones that should guide future naval development.⁵⁵

A brief summary of the conception would emphasize that the Navy has to be balanced in terms of all types of forces and be capable alone or with its allies to conduct a struggle in the West and East with the navies of the NATO member states. The strategic goal of our Navy derives from a unified strategy and military doctrine and involves maintaining constant combat readiness of SSBNs to execute a guaranteed nuclear strike; disruption of aggression against the Union of Soviet Socialist Republics (USSR) and its allies from sea and oceanic directions; and, cutting the sea lines of communication (SLOCs) between the United States and the military theaters in Europe and Asia.⁵⁶

The authors then discussed five related points. First, regarding the Navy's strategic forces, "their systems of command and control and support must be such that under any circumstances they will reliably execute the tasks of destruction of the assigned targets in both a [pre-emptive] or retaliatory-meeting strikes."⁵⁷

Second, the authors stated that, regarding general purpose forces, in the initial period of war, they must achieve command in the interior and lay close to our shores, destroying the first operational echelon of carrier and missile strike forces of the enemy fleet. Jointly, with land and air forces, they must ensure the passage of the primary naval forces to the ocean by the means of occupying the territories of states controlling straits or compelling those states controlling straits to grant passage through the straits. These forces were to create a threat to NATO's flanks and to ensure favorable conditions for the successful execution of tasks by the fronts on the coastal axis.

Third, during the course of the war, surface and submarine forces would execute searches for and destruction of enemy SSBNs and disrupt military and

commercial SLOCs across the Atlantic and Pacific Oceans.

Fourth, the Navy would be supported by a system of maneuvering rear in peace and war to assure the execution of the tasks assigned to the Navy. Fifth, in peacetime, the Navy must render support to the foreign policy objectives set by Central Committee of the CPSU and the Soviet Government, including showing the flag, representing the interests of the state, and deterring the aggressive designs of the imperialist states by constant monitoring of the actions of the U.S. Navy and its allies.⁵⁸

The essay concluded with four imperatives to guide the development of the Navy. First, priority must be on the development and modernization of submarines to enhance their ability to perform operational and strategic tasks in distant seas. Second, naval aviation must be strengthened as the key strike element of the surface Navy, including acquiring more aircraft-carrying ships, wing-in-ground ekranoplans, and the mass equipping of surface ships with various flying apparatuses of different types. Third, modernize surface ships for the conduct of combat with enemy warships dedicated to the combat stability of submarines and securing their deployment and the conduct of combat together with ground forces, and to protect their communications and defense of the area of their basing. Fourth, military-technical superiority in the levels of naval armaments and technology over probable opponents must be achieved and maintained on the basis of maxi-mini introduction of discoveries on issues of mass “missilization” of forces, the creation of precision strike weapons systems, and securing the demanded effectiveness and combat stability of forces and the means of reliable command and control and support.⁵⁹

Much of this has remained part of the Navy's vision of its development. Others have been given lower priorities, and still others, such as the ekranoplan, been left to commercial development with marginal military utilization.⁶⁰

The Gorshkov era was also a time when all aspects of defense matters were treated as state secrets, and even the most mundane were classified.⁶¹ The publication of such a document in the mass media would have been unthinkable. What this plan for the future did not deal with was the immediate problems facing a navy that had grown fast and now faced a range of problems undermining its effectiveness, and in tight economic times threatening its continued existence an "oceanic, balanced navy."

Secrecy concealed decay and institutional corruption. Embarrassing events such as the mutiny on board the guided missile destroyer *Storozhevoi* on November 8, 1975, would have to wait for public attention until after the collapse of the Soviet Union. The revolt, led by the ship's political officer, Captain Third Rank Valery Sablin, involved the active participation of a small section of the crew, but the objective was to start a revolt against Brezhnev and the Communist Party. On board the destroyer, Sablin had locked up the captain, brought the ship under the control of cadres loyal to him, and sailed out of Riga Harbor and into the Gulf with the intention of sailing to Kronstadt to present his demands to the Soviet people. On hearing of the mutiny, Minister of Defense Marshal Andrei Grechko's orders were brief and draconian: "Stop and destroy." Fighter-bombers were ordered to locate and attack the ship, which they did, scoring a near miss and getting the crew to stop the vessel and release the captain and other loyal officers. In 1976, on camera, Sablin was

tried, convicted of mutiny and treason, and sentenced to death. Other mutineers were sentenced to prison and hard labor. Gorshkov mounted a sweeping purge of the Baltic Fleet, and the crew of the *Storozhevoi* was broken up and assigned to other vessels. The destroyer under the same name was sent to the Pacific Fleet.⁶² Since the collapse of the Soviet Union, there have been efforts to rehabilitate Sablin. The case was reviewed in 1994, with Sablin's sentence changed from execution to 10 years hard labor, but the court refused to rehabilitate him.⁶³

A decade later, the Navy gave the Soviet elite a harbinger of things to come, but the warning went unheeded. On August 10, 1985, the Soviet Pacific Fleet suffered a nuclear disaster, which destroyed submarine K-431, an *Echo II*-class boat built in 1965, and spread radioactive contamination over a wide area of the naval base at Chazhma Bay, near Vladivostok. Human error turned the routine refueling operation into a disaster when a passing Navy torpedo boat's wake rocked the boat and caused all of the reactor's fuel rods to dislodge. This led to an unintentional critical mass and a spontaneous chain reaction. The massive explosion blew out the 12-ton upper lid and all of the nuclear fuel assemblies from the reactor compartment, destroyed the submarine's pressure hull, and contaminated the bay. Ten men were killed outright, and another 290 were exposed to fatal doses of radiation.⁶⁴ Secrecy precluded any public discussion of the accident or its radiological consequences. The fact that human error had played a critical role in the events went undiscussed. What could have been a warning to nuclear engineers went unnoticed. As Vice-Admiral V. M. Khramtsov noted, systemic problems in Soviet nuclear management were ignored. In April 1986, an

even large nuclear disaster struck the nuclear power station at Chernobyl. In that case, the scale of the consequences was so large that secrecy could not be maintained.⁶⁵

GORBACHEV, PERESTROYKA, AND THE END OF THE SOVIET NAVY

On Admiral Gorshkov's retirement, leadership of the Navy was placed in the hands of Admiral of the Fleet Vladimir Nikolayevich Chernavin. Born in 1928 in Nikolaev, he belonged to the generation shaped by the war—evacuation, technical school, and the naval high school in Baku before joining the Navy in 1947. He graduated from the Frunze High Naval School in Leningrad as a submariner and began his service on diesel submarines with the Northern Fleet. Chernavin was part of the postwar generation of Soviet submariners who turned the Northern Fleet into the most powerful part of the Soviet Navy over the next 3 decades. In the late 1950s, he made the transition to atomic submarines as captain of a K-21 boat when it was under construction and took it to sea in 1961 as part of the Northern Fleet. Chernavin continued a successful career in nuclear submarines in the 1960s and 1970s, making long-range submerged voyages from Northern Fleet via the Arctic Ocean to the Pacific Fleet submarine base on Kamchatka and from Kamchatka back to the Northern Fleet by way of Cape Horn. From 1977 to 1981, he served as C-in-C Northern Fleet and then was appointed Chief of the Main Naval Staff and First Deputy C-in-C of the Soviet Navy. In December 1985, he was appointed C-in-C of the Soviet Navy, replacing Gorshkov. During his tenure, the decline of the Soviet Navy began and continued until it ceased

to exist. At this point, Chernavin became C-in-C of the Navy of the Russian Federation, a post he held until August 25, 1992, when he was assigned to the Ministry of Defense; then, in 1993, he retired from service. During this period, Chernavin managed the division of naval resources among successor states. In the Caspian Sea, the division included Azerbaijan, Turkmenistan, Kazakhstan, and Russia and involved giving up the main base at Baku and the rebasing the flotilla at Astrakhan.⁶⁶

His tenure was not an easy one. Neither Gorbachev nor Yeltsin had any appreciation of naval power and saw the Navy as an obstacle to their domestic and foreign policy objectives. Gorbachev wanted to disengage from the Cold War and concentrate on domestic reform to revive the Soviet economy by reducing defense spending. Yeltsin set out to dismantle the Soviet system and to reduce the military in all services. He envisioned an international order where a post-Soviet Russia would be a strategic partner with a West led by the United States. His Russia would be a normal market player in a global economy. To both men, the Navy was an excessive expense, save the strategic nuclear submarine force, which, as part of Russia's triad, provided strategic stability and offered diplomatic advantage by affirming Russia's status as a leading nuclear power. However, strategic nuclear submarines had their own dangerous risks apart from their role in the strategic triad.

Nuclear submarines, the pride of Gorshkov's oceanic navy, became a persistent nightmare for Chernavin. On October 3, 1986, only 5 months after the nuclear disaster at the Chernobyl facility in Ukraine, the Soviet Navy faced its own nuclear disaster, affecting its claim to being the oceanic part of the Soviet

nuclear shield. This was the first such disaster that the Soviet elite decided to share with the outside world. We were privy to the highest-level discussions by the Soviet leadership about the accident on board the K-219. The Politburo met on October 6, 1986, with Gorbachev in the chair. Three days had elapsed between the original fire and explosion on board the K-219, a *Yankee*-class I SSBN, and the sinking of the vessel at 11:03 a.m. in the Sargasso Sea. Setting the tone of the meeting, Gorbachev asked, "The cause of the accident and of the loss of the submarine is not yet clear. Could it have happened due to lack of competence of the crew or because of cowardice [sic]." ⁶⁷ Its deployment close to Bermuda was a sign of the tensions of the early 1980s, which had witnessed the beginning of the deployment of Pershing IIs and GLCMs to Western Europe. In response, the Navy had increased the tempo of SSBN deployments, adding additional stress to their crews. K-219 was an older SSBN with shorter-range nuclear armed missiles. Its patrol area put it off the east coast of the United States. Its commander, Captain Second Rank Igor Anatolievich Britanov, was an experienced submariner, who had taken K-219 on two previous patrols. However, on this occasion, his crew was made up of officers and sailors from K-219 and K-241, and the preparation for the deployment had been "chaotic." ⁶⁸

The accident on October 3 was the result of a failed seal on one missile silo and the entry of salt water. The decision of an officer to try to drain the silo of water using high-pressure pumps caused the liquid fuel tanks on the missile to rupture, whereby the mixing of salt water with the residue of missile fuel in bottom of the shaft caused an explosion and fire in the missile silo in the fourth section of the hull. Attempts to contain the

damage failed, and the vessel plunged from 45 meters to 900 meters before the crew could recover command. One of the crewmembers sacrificed his life to take the sub's nuclear reactor offline. Six lives were lost among the crew.⁶⁹ Captain Britanov surfaced the boat and began an assessment of its condition. Naval headquarters in Moscow ordered the damaged submarine to accept a towline from a Soviet freighter, which was to bring the damaged boat back to its homeport, Gadzhiyevo, near Murmansk. The crew was evacuated, and a small party stayed on board, including the Captain. In the rough sea, the towline parted, and the submarine began to sink. Chernavin provided the Politburo with a detailed report on what was known about the incident and responded professionally to questions as to whether sabotage or incompetence was responsible for the loss of the boat.⁷⁰ The Politburo did take the extraordinary action of sharing information about the incident. Gorbachev proposed:

Further, as I already said, it is important to get a message about what has happened to the socialist countries, the Americans, the International Atomic Energy Agency (IAEA), and make a report via TASS. Herewith it is necessary to specify that there is no threat of a nuclear explosion or nuclear contamination.⁷¹

As an afterthought, Foreign Ministry Andrei Gromyko suggested that TASS should also inform the Soviet population of the event. The Politburo agreed.⁷² The openness associated with the sinking of K-219 provided the backdrop to the Reagan-Gorbachev Summit in Reykjavik, Iceland, on October 11-12, 1986, which, while unsuccessful in terms of an agreement, set the stage for follow-on U.S.-Soviet arms control negotiations.

Something curious followed the application of glasnost to the catastrophe. Captain Britanov was arrested on the orders of Defense Minister Marshal Sergei Sokolov and held without trial until Sokolov was fired in 1987 over the Rust affair. Sokolov's successor, General of the Army Dmitri Yazov, had Britanov released without a trial and discharged from the Navy. At the same time, two narratives of the events leading to the sinking of K-219 emerged. One, which most of the surviving crewmembers supported, described the accident as a function of equipment failure and human error.⁷³ Then a thesis appeared that the initial accident was the result of a collision between the USS *Augusta*, which was in the vicinity, and K-219. This argument was developed by Rear Admiral Nikolai Mormul based on his involvement in the design and construction of the *Yankee I*-class SSBN.⁷⁴ This explanation of submarine disasters because of collisions with foreign submarines would appear again in the case of the loss of another nuclear submarine when Putin was President.

By the late 1980s, the Soviet Navy contained more than 100 squadrons and divisions and had a total manpower of over 450,000, including 12,500 naval infantry. In 1989, the naval budget was about 12 billion rubles out of a total defense budget of 77.294 billion rubles, or one-sixth of all defense spending. The naval budget included almost 3 billion rubles of warship construction, and 5.5 billion rubles for technology and equipment. The Navy was composed of 160 oceanic and long-range maritime zone surface ships of all classes and over 400 submarines, including 83 SSBNs, 113 SSNs, and 254 SSs.⁷⁵ There were many different types of SSBNs, SSNs, SSs, cruisers, destroyers, frigates, and aircraft-carrying cruisers. It had its own naval air force

composed of land-based and carrier-based aviation, including strike aircraft, VSTOL fighter aircraft, ASW helicopters and aircraft, maritime reconnaissance, and medium-range bombers capable of carrying air-to-surface and anti-ship cruise missiles. However, these aircraft were inferior to Western models in their electronics and especially systems for early warning and command and control. By the end of the Cold War, Soviet Naval Aviation had lost its primary mission, and with the collapse of the USSR, many of its air bases were outside the Russian Federation. With consolidation of aviation assets with the Aerospace Forces, the Navy was left with the fighter squadrons on its one carrier, *Admiral of the Soviet Navy Kuznetsov*; ship-based helicopters at sea; and, shore-based ASW and ground attack helicopters to support naval infantry units.⁷⁶ Maksim Klimov has argued that, in terms of combat capabilities, naval aviation now lacks reconnaissance aircraft, and that naval aircraft have inferior avionics because they are the products of Soviet design bureaus.

Today, a gap in the military capabilities of our own aircraft of our own and a potential enemy has become critical, calling into question the ability of general aviation to execute of any tasks. Unfortunately, the fact that we have not realized until now, in the public consciousness (including among military professionals) dominates the view of our aircraft as the best. This overlooks the fact that we are talking about the aircraft developed before the start of the 80s of the last century.⁷⁷

Recovery of the Russian Navy over the next 2 decades was slow. The total number of warships did not reach 136 until 2010. With the break-up of the USSR, Russia inherited much of the Soviet Navy, but with the end of the Cold War, it had neither a defense rationale nor the funds to maintain such a large naval

force. Russia's naval posture shifted from "oceanic" to one of maintaining a modest presence in four maritime theaters (the Barents, Baltic, and Black Seas, and the Pacific Ocean) along with presence in the Caspian Sea. Today, the Navy has 148,000 personnel made up of conscripts and contract (*kontraktniki*) personnel providing its skilled technicians. Over the last several years, the Navy has promised that all personnel on surface ships, then submarines, and finally all warships would be *kontraktniki*, most recently in February 2015 with regard to crews on all submarines.⁷⁸

The strategic nuclear forces aboard the SSBNs, which Russia inherited, were reduced in numbers and patrol regimes but did receive an investment in the modernization of the force in terms of a new class of SSBN to replace several older classes of SSBNs (*Delta III*, *Delta IV*, and *Typhoon*). Design work on this new class, Project 935, had begun in the mid-1980s, but changes in the SSBN's proposed armament to the Bulava R-30, a maritime version of the solid-fuel Topol M ICBM, caused modifications in the vessel's design, which brought a new project designation, Project 955, the *Borei*-class SSBN. The first boat of this class, the *Yuri Dolgoruky*, was begun in November 1996 at the Sevmash Yards in Severodvinsk and supposed to be completed by 2001. The *Yuri Dolgoruky* was not commissioned until 2007 because of a shortage of funds.

This new series of SSBNs has continued to be built at Severodvinsk, with three ships of this class deployed: the *Yuri Dolgoruky* with the Northern Fleet, and the *Alexander Nevsky* and *Vladimir Monomakh* deployed to the Pacific Fleet. At the time of this writing, four more *Borei*-class SSBNs—*Knyaz Vladimir*, *Knyaz Oleg*, *Generalissimus Suvorov*, and *Imperator Aleksandr III*—are now under construction, and three more are scheduled to

begin construction. The first three boats were Project 955 and were designed to carry 12 Bulava missiles with 6-10 MIRVed warheads each. The follow-on vessels, designated Project 955A, have been redesigned to carry 16 Bulava missiles. The Bulava missile was the first solid-fuel SLBM to be deployed on Russian SSBNs.

Marshal Igor Sergeev, as Minister of Defense in the 1990s, had favored this technology because it was based on the successful TOPOL M ICBM developed by the Moscow Institute of Thermal Technology (MITT). This decision was made when defense funds were very tight, and the survival design bureaus depended on long-term contracts.

Sergeev, a former commander of the Strategic Rocket Forces, bet on the ability of the MITT to resolve successfully the issues associated with the submerged launch of an SLBM.⁷⁹ Yury Solomonov, the Director of MITT, expressed full confidence in the ability of his institute to complete the contract. Vladimir Dvorkin, then-director of the Ministry of Defense's Fourth Central Scientific Research Institute which supported the Strategic Rocket Forces, also endorsed the proposal, and the Ministry of Economics expressed its support for economic reasons. The development of the Bulava bypassed the Navy's Academician V.P. Makeyev State Rocket Center that in the late 1990s was developing the P-29RMU2 "Sineva," a liquid-fueled SLBM.⁸⁰ Although work on the "Sineva" was discontinued in 1999, it resumed in 2000. A series of early launch failures of the Bulava called into question the decision to make that missile the armament for the *Borei*-class SSBNs then under construction. The test failures of the Bulavas were traced to problems with quality control among subcontractors and corrected. Renewed funding for the "Sineva" came with the contract for rearming the

Project 667-BDRM *Delfin* (NATO-*Delta IV*) SSBNs. Modernization of the Sineva missile has continued with the successful test launches of P-29RMU2.1 ("Lainer") and its movement into mass production in January 2014. By the year 2000, the nuclear legacy of Gorshkov's navy had become a serious ecological concern for the states bordering the Barents Sea. The de-coring of Soviet nuclear submarines of all classes was a primary activity at Severodvinsk and raised serious ecological challenges associated with the temporary storage of the uranium rods until their shipment to Chelyabinsk for permanent storage.⁸¹

Of all the Russian services, the Navy seemed most eager to embrace the legacy of Imperial Russia. It gave up the Soviet naval flag with its red star, hammer and sickle, and blue strip across the bottom, for the traditional St. Andrew's Cross on a white field. It accepted a new naval emblem based upon the tsarist model: crossed anchors with a double-headed eagle and crown, and an icon of St. George killing the dragon. This willingness to return to imperial symbols reflected the Navy's disgruntlement at being a junior part of the Soviet defense establishment and subject to the military guidance of the General Staff controlled by ground force commanders. There was some evidence of a "revolt" against the memory of Admiral Gorshkov, when the Navy's leadership gave prominence to the career of Admiral Nikolai Gerasimovich Kuznetsov, who commanded the Soviet Navy during the Great Patriotic War and had served as the Soviet Union's one and only People's Commissar of the Navy (1939-1947) and Naval Minister (1951-1953). Admiral Kuznetsov had been associated with two efforts to build a capital ship and oceanic navy in the late 1930s and early 1950s, but neither was successfully completed. In his honor, the heavy aircraft-carrying cruiser, Project 1143.5, was

finally named *Admiral of the Fleet of the Soviet Union Kuznetsov* in 1990, after carrying the working names *Soviet Union*, and then *Tbilisi*. Unlike Gorshkov, who came to large-carrier development late in his career, Kuznetsov had favored the inclusion of carriers in his plans for an oceanic navy.

Kuznetsov had been a champion of symmetric naval forces to balance those of potential adversaries, a posture that assumed that Russia would be able to negotiate with the leading European naval powers in times of crisis. However, this became questionable with the advent of the Anglo-French alliance during the Crimean War, the rise of the Pacific naval powers and associated arms race, the emergence of the Kaiserliche Marine as a major naval power, and the achievement of global naval supremacy after World War II no longer applied. Gorshkov belonged to a long-standing tradition of those seeking asymmetric developments to counter a stronger opponent's capabilities and exploit his vulnerabilities in the tradition of the French *Jeune École* (Young School). Commerce raiders, submarines, torpedo boats, and destroyers were the traditional tools, but Gorshkov also embraced the cruise missile, nuclear propulsion, and ballistic missiles to create an oceanic navy, and added to it aircraft carrying cruisers; nuclear-powered battle cruisers; and, even the ekranoplan, with its exploitation of the wing-in-ground effect.

Upon his election as President of Russia, Putin inherited a navy in decline. Such declines were not anything new for the Russian/Soviet Navy. Militaries must constantly face the challenge of being "learning and adapting" institutions. They must be firmly grounded in their own societies and reflect its values, but they must also focus upon and learn from their probable enemies. In an invaluable work on military

misfortunes, Eliot Cohen and John Gooch set out to examine the anatomy of failure in war by a series of case studies addressing sources of failure: the failure to learn, the failure to anticipate, the failure to adapt, aggregate failure, and catastrophic failure. The cases cover the period from World War I to the 1970s; are eclectic in looking at a range of national militaries (American, Israeli, British, and French); and, include naval, ground, and air operations. In their final chapter, the authors address the question: "What can be done?" Here they rightly focus on the different dimensions of strategy and the complexity of the tasks facing commanders in modern warfare and return to the challenges of making militaries into learning, adapting, and anticipating institutions.⁸²

In the case of the Russian military since the time of Peter the Great, there have been many spectacular victories and a good share of defeats, including some so catastrophic as to lead to the collapse of military institutions, the state, and society. In his campaigns, Peter I had his share of defeats. First, was the first Azov campaign of 1695, followed by an exercise in learning—the incorporation of riverine craft to assist in the isolation of the Ottoman garrison from naval support. Second, was the Battle of Narva in 1700 at the start of the Northern War where Swedish forces under Charles XII defeated Peter's new model army but left the Russian Army in the field to learn the lessons that made possible the victory over the Swedes at Poltava in 1709. Third, was the Battle on the River Pruth in 1711, where Peter I's outnumbered army was surrounded by a larger Ottoman Army and faced possible destruction only to be saved by adroit diplomacy and the jewels of Peter's wife, Catherine Alekseyevna.⁸³

Peter the Great did, of course, achieve decisive strategic results during the Northern War, during which the Russian Navy developed from a riverine force to a coastal and blue-water force which could operate in support of land operations and from the newly-created national capital and main naval base, St. Petersburg-Kronstadt. The successful campaign against the fortress at Azov is the date of the founding of the Russian Navy. The Battle of Gangut on July 25-27, 1714, resulted in a complete victory of the Russian galley and sailing fleet under the command of Peter the Great over the Swedish Fleet under Admiral Gustav Wattrang, and is still celebrated as the first victory of Russian sea power. However, successes based upon charismatic leaders and their visions do not usually survive such leaders. Russian naval history can be seen as a cycles of development and decline, punctuated by catastrophic collapses. These cycles are the context for Russian naval power under President Putin. They cannot be seen as narrow military problems but encompass the complex relations among the military, the state, and the society. At their core is a persistent question: Does a continental state as vast as Russia really need an oceanic navy, or should its naval forces exist to support the operations of the ground forces by protecting its maritime flanks?

Following Peter I's death, his successor for the next 2 decades saw no compelling reason to invest in the Russian Navy. The Baltic Fleets, galley and sailing, continued to exist but were not sustained, and navies need to be sustained. There was no Russian naval presence in the Black Sea. Indeed, Russia's apparent weakness and the prospect of a successful coup against Empress Anna led a militant faction in Sweden to plot a war against Russia, which would seek to undo the

Treaty of Nystad, take St. Petersburg, and re-establish Swedish rule in the Baltic provinces. The coup did take place, but the new sovereign, Elizabeth Petrovna, proved to be more like her father, Peter the Great. Rather than making concessions to Swedish claims, Elizabeth mobilized for war in 1741. In the first year of the war, Russian operations were hampered by the lack of a Baltic Fleet, but by 1742, Russia had acquired both a sailing and galley fleet, which it then used to support operations in Finland. By 1743, Russian troops were occupying Finland and, with the support of the Navy, had taken Helsinki. In the Treaty of Åbo in 1743, Elizabeth secured the succession to the Swedish throne for her candidate. She had a forward foreign policy and came to see the Baltic Fleet as a second arm to support Russian operations against Frederick the Great and Prussia during the Seven Years War.

In the three sieges of the port of Kolberg in Pomerania in 1759, 1760, and 1761, the Russian Navy supported the second and third until the fall weather made withdrawal to their bases prudent. During the third siege, a combined Russian and Swedish force carried out a month-long bombardment in support of Count Pyotr Rumiantsev's besieging army, which took Kolberg in December 1761 and put Berlin under the threat of a Russian attack. This military success, however, did lead to a further Russian advance. In the same month as the victory, Elizabeth Petrovna died and was succeeded by her heir, Peter III, who completely changed Russian foreign policy by abandoning former allies and embracing an alliance with Frederick the Great. Russian state successions could have profound military and diplomatic consequences. Peter III's reign was short and ended violently, when a coup by Guards officers placed his wife, the former Sophie

Friederike Auguste von Anhalt-Zerbst-Dornburg, on the throne as Catherine II.

Catherine II became Catherine the Great because of her domestic and foreign policy successes, which involved the use of Russian military power. She ruled Russia from 1762 to 1796. Like Peter the Great, she appreciated the utility of land and naval power and had the foresight to find commanders who would apply that power to achieve her foreign policy goals in northern Europe and the Baltic, in the Southern Steppe, and on the Black Sea. Catherine the Great survived a major serf uprising and a frontier revolt; adroitly managed “The Polish Question” through three successive partitions among Russia, Austria, and Prussia, creating the foundation for an alliance among the three monarchies; and advanced Russia’s position in the Baltic.

Examining the Russian Navy by a Different Lens

Back in the days of the Cold War when Admiral Gorshkov was creating a Soviet oceanic naval power, the question was asked about the lens to be applied to the development of these naval forces into an asymmetrical instrument to challenge U.S. global naval supremacy. The Gorshkov era was a long one. Appointed C-in-C of the Soviet Navy in 1956, he served in that capacity until 1985. In nearly 3 decades as C-in-C, Gorshkov transformed Soviet naval power, guiding its evolution into a nuclear-propelled, missile-armed instrument of Soviet power. In those 3 decades, the Soviet Navy became a challenge to U.S. maritime hegemony. Understanding the evolution of that force became a critical national task. Much useful work was done by intelligence specialists working in various parts of the craft of intelligence. Much attention went

to Russian naval procurement: what was built, where it was built, and how it was built. New ships were monitored as they appeared. Naval architects and engineers engaged in systems analysis of each new ship in each class. The placement of new weapons systems on older hulls was noted.

The appearances of new classes of ships in the Soviet inventory marked the transformation of the fleet from a post-war cruiser and submarine-centric navy into something new, not a copy of the U.S. Navy, the dominant naval power, but something distinct— asymmetric response and force. In the first decade of Gorshkov's leadership, the Navy added diesel-electric SSBMs (Project 629 "B-2"), NATO-*Golf* (entered into service in 1958), nuclear attack submarines (Project 627 "Whale"), NATO-*November* (entered into service in 1958), nuclear SSBNs (Project 658 "K-19"), NATO-*Hotel I* (entered into service in 1960), Project 205 Guided-Missile Boats, NATO-*Bear* (entered into service in 1960), Project 61 Large-ASW Warship, *Komsomolets Ukrainy*, NATO-*Kashin* (entered into service in 1964), and Cruiser Project 58 *Varyag* Guided-Missile Cruiser (entered into service in 1965).

Two years later, it added its first aircraft-carrying cruiser, Cruiser Project 1123 "*Moskva*," NATO-*Condor* (entered into service in 1967). Here the Soviets did not create an aircraft carrier, but an ASW cruiser equipped with helicopters to hunt the first generation of U.S. SSBNs. This development led Commander Robert W. Herrick (U.S. Navy) to seek to understand why Russian naval development was not following classical Western naval theory with its emphasis upon capital ships and command of the sea. In an examination of Soviet naval strategy from 1917 to 1968, Herrick concluded the Navy was bound by the different

constraints of a continental power whose defense policy was dominated by the demands for land warfare. The continuing absence of aircraft carrier construction and two failed programs under Stalin to create capital-ship navies that could contest for command of the sea were key evidence in Herrick's argument.⁸⁴

In December 1967, Admiral Arleigh Burke wrote the introduction to Herrick's *Soviet Naval Strategy: Fifty Years of Theory and Practice*. After reviewing the dire threat that U.S. Polaris submarines armed with missiles carrying multi-warheads posed to the USSR, Burke concluded that U.S. nuclear forces could deter the Soviet Union from starting a nuclear war because it would face "the high probability of destruction" should the current balance of forces continue. This led Burke to ask that immortal question about the Soviet Union Navy:

Then why have the Soviets developed a navy at all? To defend the water contiguous to her shore line. To support her ground forces. To conduct short-haul amphibious operations close to territory she holds. To destroy Free World merchantmen and naval ships in the event of a 'conventional war'. To dominate the waters of her adjacent nation neighbors, and, thus, to intimidate them.⁸⁵

In 1969, a collective of senior Soviet naval officers published a new textbook "for higher-naval schools," which provided some clues to the answer to Burke's question. Devoted to the history of naval art, the book provided an exposition of naval theory and practice as developed by the Western maritime powers and that of Imperial Russia and the Soviet Union. This was a naval theory adapted to the specific geostrategic circumstance of a Eurasian power, confronting evolving naval capabilities of its probable opponents, as they would apply in specific maritime theaters.⁸⁶ The

authors concluded with an analysis of the role of naval power, especially carrier aviation, in the wars in Korea and Vietnam. They quoted Admiral Gorshkov on the tendency to increase the role of NATO naval forces as “one of the basic strategic means in a future war.”⁸⁷ In this fashion, Gorshkov answered Burke’s proposition that the *Polaris*-class SSBN had become a guarantee of U.S. Naval superiority in naval strategic nuclear forces.

In 1968, the first true Soviet SSBN entered service. Project 667A *Navaga*, NATO-*Yankee*, fired 16 SLBMs (R 27K Zyb, NATO-SS-N-6 Serb) inside the hull. These missiles were liquid-fueled, armed with a single warhead, and had a range of 1600 nautical miles (nm). The first boat in this class was built at Sevmash Yards in Severodvinsk and was a K-137 *Leninets*. A total of 34 *Yankee*-class SSBNs entered service over the next 6 years. Construction of this class of SSBN took place in both Severodvinsk and at the Leninsky Komsomol Yards in Komsomolsk, with the majority of boats (24) built at Sevmash.⁸⁸ From this point forward, Soviet naval forces would have four strategic missions: countering U.S. carrier aviation, conducting strategic ASW operations against U.S. SSBNs, protecting Soviet SSBNs, and providing the maritime strategic nuclear forces of a Soviet triad. These strategic missions stood on its head the accepted view of Russian and Soviet naval forces as primarily the maritime flank support of the Soviet Army.

In the second decade of Gorshkov’s leadership, the Admiral added new classes of ships reflecting a very distinct view of naval power in the nuclear, ballistic-missile era. In 1970, Gorshkov put his navy to sea for a global naval exercise, Okean-70, which began on the 100th anniversary of Lenin’s birth, April 22, and continued to May 5. It involved all Soviet Fleets and

all classes of warships (80 submarines [of which 15 were nuclear powered], 84 surface warships, and 45 auxiliaries), naval aviation, and naval infantry. The structure of the exercise pitted the Northern (Red) side against the Southern (Blue) side in both the Atlantic and Pacific Oceans. The missions conducted by “Red” against “Blue” left no doubt the opposing force was the U.S. Navy: search for and destroy enemy SSBNs; strike land targets; and, destroy enemy carrier strike groups, amphibious forces, and convoys.⁸⁹ Gorshkov’s recent biographer has assessed the significance of “Okean” in the following terms:

The Maneuvers, Okean-70, forced Western naval experts to acknowledge that the era of uncontested command by NATO’s naval forces in the world ocean had come to an end, and the higher military-political leadership of the USSR finally agreed that the navy represented a most important strategic factor.⁹⁰

In fact, it was not so clear in the early 1970s that Gorshkov had gained such an exalted position for the Soviet Navy within the Soviet defense establishment. The USSR was a continental power. Its primary service was the Soviet Army, and military-political leadership was in the hands of the CPSU, with the General Staff serving as the “brain of the army” and the institution entrusted with military foresight and forecasting. The Navy was but one service among five (Army, Air Force, Navy, National Air Defense Forces, and Strategic Missile Forces). Soviet Minister of Defense Marshal Andrei Grechko (1967-1976) was a veteran of the Great Patriotic War, where he had commanded an army. He was a graduate of both the Frunze Military Academy (1936) and the Academy of the General Staff (1941). Chief of the General Staff Marshal of the Soviet Union Matvei

Zakharov (1964-1971) graduated from the Frunze Military Academy in 1928 and the General Staff Academy in 1937. On the eve of war, he was serving as Chief of Staff of the Odessa Military District. During the war, he served as chief of staff for various fronts, including those involved in major offensive operations conducted by tank armies, and finished the war as Chief of Staff to the Transbaikal Front (Commander Marshal of the Soviet Union Rodion Malinovsky) during operations against the Kwantung Army.

Soviet military leadership belonged to those who had led the tank armies to Berlin, Germany. The Navy in that war had existed to be a supporting arm on the Red Army's maritime flanks. Gorshkov, who had fought the war in the Black Sea, understood all aspects of this supporting mission. He led the successful Soviet amphibious operation in support of the defense of Odessa in September 1941, then commanded the Azov Flotilla from October 1941 to August 1942, covering the Siege of Sevastopol and German advance toward Stalingrad and ending with the breakout of the Azov Flotilla into the Black Sea. He even served as commander of 47th Army in defense of Novorossiysk until February 1943, when he again took command of the Azov Flotilla during the liberation of Crimea and South Ukraine. Gorshkov then commanded the Danube Flotilla from February to December 1944, when it supported the advance of the Third Ukrainian Front under the command of General of the Army Rodion Malinovsky (to May 1944) and then Marshal of the Soviet Union Fedor Tolbukhin deep into Romania, Yugoslavia, and Hungary. Consequently, Gorshkov was well aware of this historical fact.⁹¹ Gorshkov, who assumed command of the Black Sea Fleet's surface squadron at Sevastopol in January 1945, found he had

a force prepared to conduct amphibious landings and artillery support to shore operations, but not one ready to conduct warfare at sea.⁹²

Aware of this dominant perception of the role of the Soviet Navy in the Great Patriotic War, Gorshkov set out to articulate an alternative theory of sea power, based upon his own reading of maritime history and the saga of the tsarist and Soviet navies. He did this in a series of articles in *Morskoi sbornik*, the professional journal of the Navy titled, "Navies in War and Peace."⁹³ The core dialectical relationship in the series was the different geostrategic positions of the USSR and its chief adversary, the United States. The former was a great continental power, and the latter was a global maritime power. Both were responding to the new strategic conditions created by the development of nuclear weapons and new means of delivering them. Gorshkov argued for a fresh appraisal of the role of naval power in war and peace, emphasizing the impact sea-based nuclear weapons could have upon the course and outcome of a future war. He rephrased the existential question that plagued Russian and Soviet Navies: "Does Russia need a navy?"⁹⁴ Gorshkov's answer echoed that of Peter the Great in the introduction to the Naval Regulations of 1720.⁹⁵ "That any potentate, who has just ground forces has only one arm, the case where he also has a navy, he has two arms."⁹⁶ Implied in this remark by Peter and as used by Gorshkov, the sovereign had to discern the optimal uses of each service, taking into account national objectives in times of war and peace, based on an assessment of enemy capabilities and intension, and recognizing the impact of technological developments on military art and science.

Those who followed Soviet naval developments immediately noted Gorshkov's series, but most

Western naval professionals and specialists found its structure puzzling, heavy on Russian naval history; mixed attention to naval presence and warfighting; and, the concept of a “balanced” navy, which ignored the capital role of aircraft carriers in achieving command of the sea. In response to this situation, the Center for Naval Analysis published a collection of three essays by leading experts on the Soviet Navy under the title, *Admiral Gorshkov on Navies in War and Peace*.⁹⁷ The specialists—Robert G. Weinland, James M. McConnell, and Michael K. McGwire—each brought their insights to the text. All agreed that this was a major publication, that it represented an exposition of Gorshkov’s views on naval power in the history of the Russian and Soviet state, and that it was part of an internal debate over the future development of the Navy and its place in the Soviet defense system.

Weinland suggested that Gorshkov’s opponents included elements in the political leadership, defense industries, and competing military services, who saw his oceanic navy taking resources from ground, air defense, and strategic missile forces.⁹⁸ McConnell found in the Gorshkov series the formulation of “a new Soviet naval doctrine” directly related to the enhanced strategic nuclear capabilities of a new generation of SSBNs. These SSBNs were mainly occasioned by the introduction into the fleet of large numbers of SLBMs over the past decade and especially by the acquisition of the *Delta*-class SSBN and the long-range SLBM (R-29 CO Navy and NATO-SS-N-8 Sawfly), which reduced the wartime vulnerability of the *Delta*-class SSBN, that had entered service in 1973.⁹⁹ McConnell postulated a very distinct interpretation of role for Soviet SSBNs stationed in the Barents Sea and Sea of Okhotsk in performing their deterrence and retaliatory missions. They

would remain in their “bastions” and be protected by Soviet ASW surface, submarine, and aviation forces to ensure their survival so that they could execute their mission.¹⁰⁰

MccGwire described the Gorshkov series as a polemic in favor of an oceanic navy mounted by its C-in-C in the lead publication of his own service with the intent of procuring for his service a leading role in national defense in peace and war. MccGwire recognized Gorshkov’s call for the maintenance of the Navy’s infrastructure and its modernization as vital to Soviet national defense.

Its publication is politically significant and discloses the existence of a major cleavage of opinion within the Soviet political and military leadership, which extends beyond the navy’s role to wider issues of peace and war and the nature and style of Soviet foreign policy.¹⁰¹

In Gorshkov’s case, the series was an exercise in what John Erickson referred to as “ordered ferment.”¹⁰² This “ferment” was a process combining education of Gorshkov’s naval cadre, persuading industrial, military, and political leaders about the wisdom of having a balanced oceanic navy in peace and war; and, confirming a line of naval development to ensure that such an outcome would be achieved.¹⁰³ In his polemics with his opponents among the Soviet political and military elite, Gorshkov had to contend with the notion that modern war could still be fought via mass mobilization of manpower and industrial production in the immediate pre-war period. Soviet 5-year plans sustained basic defense industries, but wartime called for the general mobilization of the entire civil economy. However, a navy requires many years of design and planning before construction can begin, so design bureaus, yard,

and works must be maintained for the *longue durée* since ships cannot be created overnight but require highly skilled labor and unique technology. Most navies fight most wars with the ships they possess at the start of hostilities.¹⁰⁴ Gorshkov's key objective was to create a "school" of professional naval officers who would understand this reality of naval development and would struggle to maintain the foundations of the Navy in peace and war.¹⁰⁵ This cadre would continue to shape the Navy after Gorshkov's departure.

During his last decade as C-in-C of the Soviet Navy, Gorshkov continued the modernization of the nuclear submarine and surface naval forces. He oversaw the evolution of Russian carrier aviation from VSTOL heavy aviation-carrying cruisers armed with cruise missiles, to a second-generation heavy aviation-carrying cruiser capable of operating conventional, fixed-wing aviation. He pushed for the modernization of the Navy's strategic nuclear forces, its land-based strike aviation, and its cruise missile systems, and added a new class of capital ship, a heavy nuclear-powered missile cruiser.¹⁰⁶ Gorshkov justified these efforts based on the competition with the U.S. and NATO Navies for position to exploit the world's maritime resources. However, the fall of the Soviet Union forced new strategic issues upon the Navy and its advocates.

In the post-Soviet era without the ideological competition between East and West, what could provide the rationale for sustaining a closely oceanic navy by a weakened continental power? The answer to that question depended upon the threat environment in which the Russian Federation would function. For the first post-Soviet decade, reform of the national economy and creation of the beginnings of an open society put the leadership's attention on the domestic environment. By the middle of the decade, a different set of

assumptions about the external environment and the nature of the Russian state and society were emerging. Some were returning to the notion of a maritime threat from the U.S. and NATO Navies to justify the resurrection of Russian naval power on parity with this threat.¹⁰⁷ Others simply dismissed the effort to achieve parity as unrealistic, given the state of the Russian economy, and called into the question the assessment of the threat. Viktor Sokolov, a systems analyst, suggested that a “revived” Russian Navy might realistically seek parity with the Royal Navy and even then, it would strain the capacity of the Russian economy.¹⁰⁸ As this debate suggests, the ghosts of Gorshkov and that “Idol on a bronze horse” were about.

Putin and Peter the Great: What Does a Potentate Need?

For Putin, the calculation has never been ambiguous. He belongs among those who have seen a strong, centralized state as the necessary guiding force for Russian society and civilization. Putin’s worldview in keeping with a career in the external service of the KGB was shaped by *raison d’etat* and *realpolitik*. This did not exclude the application of soft power where it might be useful, but Russia could not afford to be perceived as weak. In the new world order, Washington saw itself as “the indispensable nation” with military forces to shape the world to its ends. That is not say that Putin did not see positive benefits in some of the internal reforms of the 1990s. By the end of that decade, Putin was deeply concerned about the internal and external weakness of the Russian state as manifested by the continuing challenge to Russian sovereignty in the North Caucasus and the blatant disregard for Russian

interests in the near abroad. This was demonstrated by NATO's continuing expansion and its assumption of the right to conduct out-of-area operations, even in regions considered in its traditional sphere of interest.

By the late 1990s, Putin had moved from St. Petersburg to Moscow, became a confidant of the Yeltsin family, and been brought back into intelligence and national security policy. In July 1998, President Yeltsin appointed Putin head of the FSB. Putin thus emerged as a *Silovik* in a period of political instability inside Russia. As soon as he took over the FSB, there were rumors about Putin's influence in the Russian political elite.¹⁰⁹

Further, Russia faced instability in the Caucasus with a real risk of a revived war between Russia and Chechen separatists in the spring and summer of 1998. Looming behind this risk of a renewed war in the Caucasus was the risk of foreign intervention in what Moscow viewed as an internal matter. A serious debate as to how Russia should respond was already underway in the late summer of 1998. In the north, President Yeltsin, as C-in-C, for the first time took part in an exercise by the Northern Fleet involving surface ships, submarines, and carrier and land-based naval aviation.¹¹⁰ The exercise was presented as a Russian response to strikes by U.S. naval forces against Sudan and Afghanistan. The exercise culminated with the launch of an SLBM from a Northern Fleet SSBN, which affected the test range in Kamchatka.¹¹¹

In the south, and on a smaller scale, the North Caucasus Military Districts ran a command and staff exercise under the direction of Lieutenant General Gennady Troshev, Deputy Commander of that military district. The exercise was presented as one against "bandits." Troshev declared that bandits in the North

Caucasus would get no peace or quiet.¹¹² The exercise was designed to assess the cooperation and coordination among units from the Ministry of Defense, the Ministry of Internal Affairs, Ministry of Extraordinary Situations, and Border Troops, FSB, and Federal Agency of Government Communication and Information (FAPSI) in operations against insurgents and bandits.¹¹³ The head of the combined staff was General Leonid Shevtsov, Commander of the Internal Troops of the Ministry of Internal Affairs and a veteran of the first Chechen war. Minister of Internal Affairs Sergei Stepashin served as exercise commander with General Anatoly Kvashnin, Chief of the General Staff, serving as Stepashin's deputy. Stepashin denied that the exercise was connected with recent events in Chechnya but stressed the possibility of very complex developments in the North Caucasus.¹¹⁴ One interesting aspect of the exercise was its culmination of an amphibious landing by naval infantry and armored vehicles from small air-cushion landing craft of the Caspian Flotilla.¹¹⁵ Chief of Staff of the Caspian Flotilla, Captain First Rank Valeri Bavichev, noted that the flotilla's ships were at sea more days than the entire Baltic Fleet.¹¹⁶ This use of naval power was to support counterinsurgency operations in a theater where Russia enjoyed naval hegemony.

In March 1999, during NATO's intervention in Yugoslavia, Yeltsin appointed Putin Secretary of the Security Council of the Russian Federation. When Putin assumed these duties, the evident crisis in European security made a thorough review of Russian foreign and domestic policy necessary. The economic crisis of August 1998 had called into question Russia's post-Soviet economic path, especially the weakness of its banking and currency system. NATO's military

intervention in the Balkans had made a shambles of Russian policy in Europe by undermining the basis of NATO-Russian cooperation in that vital and unstable area. NATO's announcement of a second round of expansion at its Washington Summit in 1999, to include states that had been part of the former Soviet Union, seemed to point to a European security system organized by NATO and excluding Russia as a functioning member. These events added to political instability inside Russia. As head of the Security Council, Putin played an active role in Russia's response to these events. After more than 10 weeks of NATO bombing and rising tensions among NATO members over the commitment of NATO ground forces in a combat role, European Union (EU)-led political negotiations among Chancellor Gerhard Schroeder of Germany, President Martti Ahtisaari of Finland, Russia's Balkan Envoy Viktor Chernomyrdin, U.S. Envoy Strobe Talbott, and President Slobodan Milošević of Yugoslavia brought about a negotiated settlement to the Kosovo conflict. It provided for the staged withdrawal of Yugoslav forces from Kosovo and the presence of a NATO-led international peacekeeping force (KFOR). Russia acted to assert its own place in the settlement by deploying Russian forces deployed as part of SFOR in Bosnia-Herzegovina to road march from there, through Serbia, to Pristina, Kosovo, to take part in KFOR. Speculation in Moscow about who knew about this deployment put President Yeltsin and Chief of the General Staff General Kvashnin among them. It was unclear whether Minister of Defense General Igor Sergeev was one, but among those who did not know, they put a group that included Prime Minister Sergei Stepashin, Special Envoy Viktor Chernomyrdin, and Foreign Minister Igor Ivanov.¹¹⁷ Putin, however, was included

in those briefed on the simulated pre-emptive nuclear strikes by Russian long-range bombers armed with cruise missiles against the United States, as part of the strategic-operational command and staff exercise, Zapad-99, conducted in late June 1999.¹¹⁸

In the late spring and summer of 1999, the Caucasus were moving closer to an explosion, which came in August in Dagestan. Putin, in his various roles (acting Prime Minister, Prime Minister, President-designate, President-elect, and President), put as his top priority managing a renewed war in the Caucasus in a fashion to ensure broad public support and immediate successful military operations. They were to be conducted to reduce the risk of foreign intervention. Bombings in Russia proper were attributed to Chechen terrorists, thereby ensuring popular support for this military campaign. The initial goal of the campaign, which was to gain control of Chechnya up to the Terek River, was achieved by early October 1999. The second phase of Russian operations involved advancing toward, isolating, besieging, and then taking the Chechen capital of Grozny, achieved in early February 2000, making use of Russian artillery to break the resistance. The surviving Chechen fighters turned more and more to terrorism, and the Russians came to rely upon pro-Russian Chechens to conduct pacification operations. Putin made the second Chechen war his own and, as a result, emerged as the successor to Yeltsin.¹¹⁹

The Navy did not seem to be a vital player in any of these operations, however, by the spring of 2000, Putin was ready to speak on naval affairs and promised a revival of Russian naval power. In March, Putin signed "Foundations of the Russian Federation's Policy in the Area of naval activities during the period to 2010."¹²⁰ The actual text of the document was published 3 weeks

later.¹²¹ The editors noted the importance of the document in the context of the deterioration of Russia's naval posture over the preceding decade and the impact of that trend upon the security of the state. The text addressed the role of the Navy in protecting Russian interests in the World Ocean, called attention to the need to ensure the modernity and efficiency of the technical infrastructure to support the Navy in various theaters, emphasized the need to sustain the maritime sciences, stated the priority missions of the Navy, and emphasized the leading role of the Northern Fleet. Regarding the missions of the Navy, the document provided a comprehensive list of tasks, but the primary one was the following.

The main tasks of the navy are: deterrence against the use of force or threat of force against the Russian Federation and its allies with the sea and ocean areas, including participation in the strategic nuclear deterrence; protection of Russia's interests in the oceans by military means.¹²²

This placed the Northern and Pacific Fleets in leading positions within the Navy, with the Baltic and Black Seas Fleets and the Caspian Flotilla in supporting roles:

The basis of the Northern and Pacific fleets constitute missile submarines of strategic purpose and multi-purpose nuclear submarines, aircraft carriers, amphibious and multipurpose surface ships, naval missile-carrying and anti-submarine aircraft, the Baltic, the Black Sea Fleet and the Caspian Flotilla-multipurpose surface ships, mine-sweeping ships and boats, diesel submarines, coastal missile and artillery troops and attack aircraft.¹²³

The document spoke of aircraft carriers for both Northern and Pacific Fleets at a time when the only operational carrier was the *Admiral Kuznetsov* with the

Northern Fleet. Of the *Kiev*-class heavy aviation-carrying cruisers, only the *Admiral Gorshkov* was still with the Russian Navy and Sevmash Enterprise was negotiating the sale of that ship to India, including its repair and modernization at Sevmash Yards, which was still under negotiation.¹²⁴ While there has been much talk about acquiring aircraft carriers, those championing the development of the information technology to fight “sixth generation warfare,” stressed the role of conventional precision strike ballistic and cruise missiles to counter the threat posed by the U.S.-NATO initial air operation to shape the course and outcome of local wars.¹²⁵ Russian shipyards still are not building any new aircraft carriers. There is much talk of Project 23000E *Storm* (a nuclear-powered carrier designed by the Krylov State Research Center) with rumors that Russia has offered to sell the design to India.¹²⁶ Indian sources confirm that a team from Krylov State Research Center visited India in July 2016.¹²⁷ After 16 years, Russia has only one operating aircraft carrier, the *Admiral Kuznetsov*, which is now conducting its first air combat operations over Syria.¹²⁸

The document also divided the Russian submarine fleet into three parts: SSBNs, SSNs, and diesel-electric boats, with the Northern and Pacific Fleets getting the first two classes and the diesel-electrics going to the Baltic and Black Seas Fleets and Caspian Flotilla. These divisions reflected the oceanic roles of the Northern and Pacific Fleets and the more modest theater support roles for the other fleets and flotilla. The promise of the 10-year program was a major enhancement of Russian naval power after a decade of catastrophic decline. It spoke of the revival of Russian naval shipyards, but did not address the fact that, in the case of the Black Sea Fleet, Russia had not only divided that fleet with

Ukraine but had lost the capital shipyard at Nikolaev and many facilities on the Crimean Peninsula.

The success of the 10-year construction program depended upon the condition of Russian state finances. The crash of August 1998 had brought the Russian economy to a grinding halt. Imports of consumer goods collapsed, and the ruble tumbled in value. Tax reforms, a stable currency, revival of domestic production to replace lost imports, and a sustained rally in oil and gas prices between 1999 and 2008 gave Russia an annual 7 percent gain in gross domestic product (GDP) over this period, which permitted an expansion of spending on defense from which the Navy benefited. Russia, like most of the global economy, suffered a serious decline in GDP in 2008, but almost recovered to 2007 levels in 2009 and thereafter grew until 2014 when declining energy prices and economic sanctions brought a sharp drop in GDP. Defense spending, which increased in 2008 as part of the military reform effort known as the “new look,” continued to grow until 2015 when the defense budget was reduced in response to the decline in GDP. The Navy was expected to be a big loser because of the reduced defense budget.

Putin spent the next several months supporting the message of naval revival. On April 5-6, 2000, Putin made a working visit to Murmansk and took part in wreath laying for Major General Alexander Otrakovsky, former commander of Northern Fleet Naval Infantry and a veteran of the first and second Chechen wars, who had died of a heart attack at his command post in Chechnya.¹²⁹ Putin presented to the General's widow the Gold Star for Hero of Russia. Putin spoke of the contribution of the Northern Fleet's Naval Infantry brigade to the current fight in Chechnya and presented

awards to those honored for their service there. Speaking to Northern Fleet personnel, Putin stated:

Russia has always needed a powerful navy. There was a time when it seemed it was not necessary. It was claimed that the army was unneeded. This is a profound mistake. In the foreseeable future [it] is unlikely that anyone will think and reason in this way. The country's leadership will do everything to preserve and multiply that which over decades has been created.¹³⁰

Putin then took part in a naval exercise conducted by the C-in-C Northern Fleet, Admiral Vyacheslav Popov. Putin observed the actions of the surface warships and boarded the SSBN *Kareliya* to take part in a ballistic missile launch in the Barents Sea. While at sea, Putin took part in all the rituals associated with the submarine service.¹³¹

Later that month, President-elect Putin made a working visit to Kyiv and Crimea, including Sevastopol. Together with President of Ukraine Leonid Kuchma, along with the Ministers of Defense and C-in-Cs of both Navies, Putin visited Sevastopol. While there were several joint venues with Kuchma, including a review of both the Russian and Ukrainian Navies, Putin took the time to meet with Russian naval personnel and the command staff of the Black Sea Fleet. He became the first Russian head of state to visit Sevastopol in at least 2 decades. He seemed intent on raising morale in a Fleet that had lost its key distant mission in the Mediterranean and much of the infrastructure that sustained it.¹³²

On Navy Day in 2000, Putin visited the Baltic Fleet's advanced base Baltiysk in Kaliningrad Oblast. He honored the sailors who served during the Great Patriotic War and returned to the theme of naval

revival. Putin answered the immortal question, "Does Russia need a navy?" in the most positive terms. He spoke of Russia's maritime connections to 3 oceans and 11 seas, and affirmed "Russia cannot exist without a navy if it pretends to the role of one of the leading world powers. If Russia is to flourish, we are obligated and will pay appropriate attention to the navy."¹³³ On Navy Day, C-in-C Navy Admiral Vladimir Kuroedov took the opportunity to emphasize the increased role of the Navy's ballistic missile submarines in Russia's strategic nuclear triad. He referred to the *Yuri Dolgoruky*, the first vessel of the new *Borei*-class SSBNs then under construction as "a warship of the new millennium."¹³⁴ He emphasized that, under Putin's leadership, the government was intent on restoring the naval power that the Navy had enjoyed at the end of the 1980s and early 1990s when it had more than 1,000 submarines, surface warships, and small combatants. Based on its quantitative and qualitative parameters, it "was considered one of the most powerful navies in the world."¹³⁵ Shortly thereafter, Putin took part in the defense of Admiral Kuroedov's candidate's dissertation in Political Sciences on "State Strategy for the protection and realization of the national interests of Russia in the World Ocean." This was one of the first dissertations approved by the Academy of Military Sciences. General Makhmut Gareev, President of the Academy, chaired the defense and because of the quality of the dissertation recommended that Kuroedov be awarded a Doctorate of Political Sciences.¹³⁶

This intimate "scholarly" connection among the President, the C-in-C Navy, and the head of the Academy of Military Sciences spoke to a new constellation of close relations outside of the normal chain of command and could only be taken as an unofficial endorsement of Kuroedov's leadership of the Navy. Putin left

Moscow for his vacation in Sochi in the south of Russia. He could be satisfied that he had taken important steps toward restoring the prestige of Navy. Moscow was empty, and nothing seemed to be on the horizon to spoil a well-deserved vacation.

The Kursk Disaster and Putin's Relationship to the Navy

On August 10, the nuclear attack submarine K-141 *Kursk* left its base to join a Northern Fleet exercise conducted by Commander of the Fleet Admiral Vyacheslav Popov. The *Kursk* was a relatively new boat, an attack submarine designed to sink enemy aircraft carriers with cruise missiles, special torpedoes, and regular torpedoes. On August 12, the *Kursk* was supposed to execute two simulated torpedo attacks: one with a standard electrical torpedo (USET-80) from standard tube and long-range, heavy torpedo kit (Whale) (No. 65-76) fired from a 650-millimeter (mm) tube with a conventional or nuclear warhead. Early reports spoke of the test firing of Russia's Shkval high-speed missile torpedo, but this was incorrect. *Kursk* was to fire both torpedoes against "opposing" forces, in this case a group of pontoons lashed together to form the target ship, sometime before 1:40 p.m. At 11:28 a.m., the sonar station on the *Petr Veliky* noted a muffled explosion.¹³⁷ Both the captain of the *Petr Veliky* and the C-in-C Northern Fleet asked about the event and were told that it was connected to a faulty radar antenna. Shortly thereafter, sonar observed what it believed to be a seismic event in the exercise area. The official investigation later concluded that this was, in fact, the detonation of some of the *Kursk's* regular torpedoes when the forward hull forcefully struck the bottom of the sea.¹³⁸ Observers of the expected torpedo

attack reported that they had not observed any attack. The *Kursk* failed to make any signal at the scheduled times it was supposed to report to the exercise commanders. Early on August 13, Admiral Popov ordered a search for the submarine, which was located at 4:51 a.m. by the sonar of the *Petr Veliky* lying on the bottom of the sea at 108 meters. However, in a press release on Sunday, August 13, via ITAR-TASS, Popov reported that the exercise had ended successfully without any mention of the fate of the *Kursk*.¹³⁹ At the same time, Admiral Kuroedov informed Putin of the disaster and told him that the Navy would handle the matter.¹⁴⁰ Putin chose not to disrupt his vacation in Sochi.

Between August 13 and 22, the Northern Fleet conducted rescue operations that failed. The first reports in the mass media about the accident came from sources in the staff of the Northern Fleet and were accurate, but did not address the immediate public concern regarding the fate of the crew.¹⁴¹ The news was both good and bad: the good news was that the *Kursk's* reactors were offline, and that the submarine was not carrying nuclear weapons. The bad news was the evidence of serious damage to the bow and the likelihood of injured crew.¹⁴² Then the Navy's media contacts announced, "communication with the submarine . . . [had been] restored" with surviving crewmembers. This raised hope among the public but also increased pressure for the speedy recovery of the survivors. Within 2 days, the Navy was forced to admit that the report had been wrong. Explanations for the lack of success in the rescue operation were offered to mass media by the Main Naval Staff in Moscow. These explanations spoke of hydrographic conditions, but were contradicted by personnel on the scene

and involved in the rescue attempt. Naval engineers involved in the design of *Kursk* were brought from St. Petersburg to assist in the rescue effort.

The press began to criticize the handling of information about the disaster where secrecy seemed more important than informing the public.¹⁴³ The Navy had still not released a list of the *Kursk's* crew to the media, so the press found its own sources for this information. On August 18, *Komsomol'skaia Pravda* published a list of 118 members of crew who had been aboard the *Kursk*.¹⁴⁴ As foreign assistance with the rescue operation was accepted and took on a more active role, their reports contradicted statements by Northern Fleet staff. On August 21, the Norwegian *Sea Eagle* delivered six Norwegian and six Russian divers to the wreck and they opened compartments to recover six bodies and secret documents. Based on their report, at 3:00 p.m. the press service of the Northern Fleet announced that the rescue operation for the crew of the *Kursk* was suspended. Shortly thereafter, the Russian Government asked for assistance from Norway for the recovery of the crew's bodies.¹⁴⁵

As time went on, the press became more and more critical of the handling of the disaster.¹⁴⁶ After the publication of the list of the crew, and the interaction between the relatives of the crew, including people coming to base at Vidyayevo, the press became more intense and increased the trauma among not only the relatives but also the rest of the base's population. The Navy's efforts to deal with the psychological problems of this special population were limited and ineffective.¹⁴⁷ It was in this situation that Putin met with the relatives of the crew on August 22. Every effort had been made to restrict press coverage. True to Russian form, Vidyayevo had been turned into a "Potemkin village" with a thorough clean up.

However, no one had prepared Putin for his meeting with the relatives. Half still believed that those dear to them were still alive and trapped, and the other half assumed they were dead and wanted to know how it could have happened. According to those who saw him, he seemed lost and near panic. He tried to explain that the terrible condition of the Navy was not his fault, but those among the oligarchs, who had robbed the state, promised that they would deal with him. The crowd would not listen. There were cries from the audience. One grandmother cried, "What about my boy?" A young woman shrieked: "I believe they are alive; what are you going to do about it?"¹⁴⁸ Admirals Popov and Kuroedov and Il'ia Klebanov, the head of the State Commission to investigate the loss of the *Kursk* also spoke to the same crowd. They focused on the situation at the wreck, but were met by the same hostile questions about how it could have happened, and if there was still a chance that some of the crew had survived. There were questions about the recovery of the dead. When Klebanov answered, "Maybe in a few months. Maybe in a year. I'm not sure," a woman in the audience screamed at him and ran up to grab his coat, crying, "You bastard, go back and save them!" Several colonels took the woman away; Klebanov seemed stunned by the incident and stopped answering questions. Then he said, "Your sons will be returned to you." When a chorus asked when, he replied, "the recovery operation will continue," and left the room. Putin did not himself escape press charges of systematically lying to the public about the catastrophe.¹⁴⁹

On August 23, Putin announced a day of national mourning for those lost on the *Kursk*.¹⁵⁰ From that point on, the Putin government was concerned about recovering public confidence and investigating the cause of

the disaster. Putin ordered the raising of the undamaged hull, minus the bow, and put the operation in the hands of Igor Spassky, the chief engineer with the Central Construction Bureau "Rubin," which contracted with a Dutch firm to oversee the actual raising of the hull, which took place over the next year. During the operation, 115 bodies were recovered.

The official investigation addressed a number of possible causes for the disaster, including a collision with another submarine (possibly a U.S. or British submarine observing the exercise), a terrorist act by a member of the crew, the detonation of an unswept mine or depth charge from World War II, an explosion of a torpedo inside the hull, a possible torpedo attack by a foreign submarine, the explosion of a new Granit anti-ship (ASW) missile, the detonation of *Kursk's* own conventional torpedoes, or a possible collision with a surface warship from the exercise group.¹⁵¹ Various experts supported these possible causes. Many with the Northern Fleet thought a collision with an American submarine was the likely cause, while some assumed that a second U.S. submarine had fired a torpedo into the *Kursk*. Among those who expressed such views was Popov, himself an experienced submariner. Popov said, "I will devote all my life so I can look into the eyes of the person who caused all this."¹⁵² On August 22, Popov appeared on television to ask forgiveness from the relatives of those lost on the *Kursk*.¹⁵³ He submitted his resignation, but Putin did not accept it.

During the recovery operation, many of these possible causes were eliminated. The investigation concluded that the first explosion was the detonation of the kit torpedo in its tube, which caused major damage in the two front compartments, thus causing the boat to dive sharply to the bottom, where the impact set off

some of the conventional torpedoes (2-3 tons of trinitrotoluene [TNT]) and carried the damage further into the ship with fatal consequences. A few of the crew survived for about 5 hours in the stern section before their air supply gave out. Of the initial detonation, the Commission noted the lack of crew preparation for firing the kit (No. 65-76) torpedo and the technical condition of the weapon itself during a time of radically reduced funding for equipment maintenance.

Putin never embraced the hypothesis about a collision with or attack by a U.S. submarine in the area. Indeed, he did not let the event have any negative impact upon U.S.-Russian relations, and when terrorists launched their devastating attacks on September 11, 2001, he affirmed his support to the United States in his response.¹⁵⁴ A criminal investigation of the *Kursk* disaster was begun, but no one was charged. Putin left Popov in charge of the Northern Fleet during the raising of the *Kursk*, minus the bow, and a thorough investigation was led by Il'ia Klebanov. Only in December 2001 did Putin act, removing Popov, his chief of staff, and about 15 other senior officers.¹⁵⁵ Shortly thereafter, Popov was appointed to a senior position in the Ministry of Atomic Energy. Putin appointed a new Commander of the Northern Fleet, Vice Admiral Gennady Suchkov, another experienced submariner.¹⁵⁶

In the meantime, however, Putin had taken certain actions to increase state control of the media and to ensure that the leaders of the power ministries were in the hands of persons close to him. The press described these changes as "a Cadres revolution," influencing senior leadership in the power ministries.¹⁵⁷ Putin removed Marshal Sergeyev and replaced him with Sergei Ivanov, who had served as Secretary to the Security Council. Putin removed Vladimir Rushailo as

Minister of Internal Affairs and appointed him Secretary of the Security Council. He named Boris Gryzlov as the new Minister of Internal Affairs (MVD). He named Alexander Rumyantsev, the Director of the Kurchatov Institute, as Minister of Atomic Energy, replacing Yevgeny Adamov. Putin spoke of these changes being connected with events on the North Caucasus and Chechnya. Evgenii Anisimov, saw the key top changes as ones which put Putin loyalists in key power ministries (Defense and MVD). Some removals were aimed at officials who were too close to oligarchs out of favor with Putin, especially Boris Berezovsky.¹⁵⁸ There was no shake-up in the Navy in the spring, although the Northern Fleet was purged in December 2001.

Admiral Kuroedov survived as C-in-C Navy until 2005 and was retired just after his 61st birthday, according to the regulations covering the senior commander. There were rumors that Putin removed the admiral because of technical problems connected with the Pacific Fleet and the sinking of the bathyscaphe AS-28 "*Priz*" at Kamchatka in the summer of 2005, and the need to call in British assistance by the deep-water Scorpio 45 remotely operated vehicle to save the crew at a depth of 1 kilometer (km). The Commander of the Pacific Fleet, Admiral Viktor Fedorov, made the decision to bring in foreign assistance. Minister of Defense Sergei Ivanov responded to the crisis by purchasing two Scorpios and the supporting technology to ensure their effective operation by the Russian Navy. At the same time, the Prosecutor for the Pacific Fleet filed a charge of negligence in connection with the accident and mounted a complete investigation of the bathyscaphe AS-28 "*Priz*" from its design and construction through its operational history to establish any criminal responsibility for negligence.¹⁵⁹

Admiral Vladimir Vasil'evich Masorin (born 1947) replaced Kuroedov as C-in-C Navy. Masorin was a surface warfare officer with a wide range of service in the Black Sea Fleet, Northern Fleet, Kola Flotilla, and Caspian Flotilla before becoming commander of the Black Sea in 2002 and served in that capacity until February 2005 when he was appointed Chief of the Main Naval Staff. Putin named him C-in-C Navy on September 4, 2005. He held that post until September 13, 2007, when he retired on turning 60. His tenure was noted for stability and good order in the Navy. Masorin's star began to rise rapidly when he commanded the Caspian Flotilla from 1996 to 2001. Masorin had to oversee the development of the flotilla's primary at Astrakhan, including financing new housing for the officer corps.¹⁶⁰ He also oversaw the deployment of naval infantry assigned to the flotilla to combat operations in Chechnya.¹⁶¹ During his tenure with the Caspian Flotilla, Western efforts to develop oil exploration in the Caspian and build a trans-Caspian pipeline via Baku turned the flotilla's presence into an instrument of high policy.¹⁶²

As C-in-C Navy, Masorin emphasized the need for warships and crews to get more time at sea on long-range cruises. He judged such voyages as the forge for professionalism in the Navy.¹⁶³ During his first official visit to the Pacific Fleet in December 2005, he conducted working visits to Kamchatka and Vladivostok. A major objective of the visit was to assess the leadership to the fleet provided by Admiral V. D. Fedorov. Masorin came away with a positive assessment of the fleet in spite of it facing serious limitations in funding and support. He was particularly pleased by its deployments of surface ships into the South China Sea, including that of a task force under Vice Admiral

Sergei Avramenko to Da Nang, Vietnam. He also noted the contribution that Pacific Fleet Naval Infantry had made to the second Chechen war.¹⁶⁴

By early 2007, Masorin could point to real progress on ship construction. The first of the *Borei*-class SSBNs which had been laid down in 1996 was about to be launched. A second ship of that class had been laid down in 2004 and a third in 2006. However, in February, Putin removed Sergei Ivanov as Minister of Defense and replaced him with a “civilian,” Anatoly Serdyukov, who had received recognition as Tax Minister under Putin. Serdyukov was expected to bring rationality to Russian defense spending. For the Navy, this meant a close look at personnel issues and acquisitions, especially shipbuilding and weapons procurement. As part of his orientation to the Defense Ministry, Serdyukov visited the senior headquarters of each of the services, including the Navy.¹⁶⁵ Masorin delivered a report on the activities of the Navy during 2006, focusing on progress in shipbuilding and execution of naval cruises. There was also an extensive report on foreign port calls and joint exercises with 18 foreign navies, including those with NATO. For his part, Serdyukov expressed official interest in warship construction, the transition to a force based primarily on contract personnel, the condition of scientific-technical support for the Navy, issues of discipline, and living conditions for naval personnel and their families.¹⁶⁶

Admiral Masorin, confronted by new currents in Russian defense policy, responded in April with a ringing plea: “Russia needs the navy.”¹⁶⁷ He used the launching of the *Yuri Dolgoruky* at Severodvinsk as the occasion for his remarks. He spoke of the long-delayed launch as a critical event in the revival of the Navy. He was candid regarding the date for the acceptance of the

submarine into naval service and mentioned sea trials and tests of its chief weapon system, “the Bulava M” SLBM. He reported that the commissioned submarine would serve with the Northern Fleet and that other boats would be split between the Northern and Pacific Fleets.¹⁶⁸ When asked about the repair and renovation of warships at Sevmash Yards, he said that full funding for the task was not expected until 2010, which meant slow progress until then in this critical area. However, he said that the state armament program did provide sufficient funds for capital repairs over the decade 2010-2020. In addition, Masorin addressed issues associated with crewing. He said that there was an urgent need for more *kontraktniki* on the newest advanced ships joining the Navy, especially nuclear submarines and modern surface combatants. Furthermore, he expressed confidence in using conscripts on old classes and even new diesel-electric submarines. He did acknowledge housing problems for shipbuilders and their families in Murmansk.¹⁶⁹ In June 2007, Masorin stated that, by 2009, the Navy would be completely composed of *kontraktniki*.¹⁷⁰

When asked about the scheduled tests of the Bulava missiles, Masorin stated that he would be there, and that he expected good luck with the launch. The concern was natural in 2006. Three test launches of the Bulava had taken place from the *Dmitry Donskoy*, a *Typhoon*-class *Delta IV* SSBN, which had one of its launch silos reconfigured to fire the Bulava. The two submerged launches and one surface launch in 2006 failed, calling into question the future of the Bulava and the *Borei*-class SSBNs, for which it was supposed to be the primary armament. Yury Solomonov, Director of the Moscow Institute of Thermal Technology (MITT), explained that the three failures in 2006 were

a result of poor quality control among subcontractors. On June 29, the *Dmitry Donskoy* carried out another Bulava launch in the Barents Sea. First reports were that the missile test had been a success. The press spoke of the burden of the Bulava being taken off Masorin's shoulders.¹⁷¹

Follow-up reports called the launch a "partial success," with all but one warhead landing in the test range. With *Borei*-class boats under construction and the need shortly to move to test firings from the *Yuri Dolgoruky*, during a visit to Kamchatka on July 12, 2007, Masorin announced that the recent test firing had been a success, and that work on the missile would continue.¹⁷² At about the same time, news broke that the recent test had not been a complete success. One warhead had landed outside the test range and that, at best, the test could be called a partial success. Vladimir Gundarov and Viktor Miasnikov wrote about the scams involved in the Bulava program. They pointed out that three officers from the press section of the Ministry of Defense had lost their jobs for reporting the partial failure. The authors speculated that so much had been invested in Bulava as a symbol of the recovery of the Russian defense industry that failure would not be tolerated. Bulava had been a questionable experiment from the start, bringing the designers of land-based ICBMs into the business of building SLBMs. The authors recalled the advanced SLBM which was under development in the 1990s to rearm the *Typhoon*-class boats, but which had been suspended after three failures for lack of funds. Since then, development was resumed, and in early July, the test firing of Sineva from the SSBN *Ekaterinburg* had been completed, and the weapon announced ready for service.¹⁷³ Press reports described

the Bulava as a “dream” and the Sineva as a real, functioning weapons system.¹⁷⁴

On the eve of Navy Day in 2007, Masorin granted an interview to *Krasnaia Zvezda* where he addressed the future of the Navy. He focused on two aspects of its future: the plan for naval development to 2015 and the life-scale of the new warships being acquired. In terms of new construction, Masorin affirmed that the structures of the fleets would continue to reflect their distinct missions:

With the reform process of the navy, we are proceeding from the need to preserve and improve the basic structures of regionally deployed operational strategic formations—Northern, Pacific, Baltic, Black Sea Fleets and the Caspian Flotilla. The basis of the Northern and Pacific fleets will be missile submarines of strategic purpose and multi-purpose nuclear submarines, surface ships and aviation. The Baltic and Black [Seas] Fleets and the Caspian flotilla will include: surface ships, mine-sweeping ships and boats, diesel submarines, coastal missile and artillery troops, and naval aviation.¹⁷⁵

Masorin described the Navy as primarily a deterrent force to protect Russian national interests at sea. However, he sought to make clear what was involved in maintaining a naval posture. On the issue of the life cycle of the new generation of warships, Masorin broke the cycle down:

research and development—7-10 years, the implementation of the system of experimental design work during the period when the technological and organizational-technical base of the new navy is formed—10-15 years, the construction period, which, in turn, is divided into stages of construction of a series of warships forming one class 12-15 years, and for the nomenclature of the entire classes is at least 20-30 years of the exploitation of the ships composing one generation—25-30 years, and a

period of recycling 5-7 years (if this stage has been provided for in advance).¹⁷⁶

What this discussion of life cycles reveals is that the current designs being turned into metal probably date from the late Soviet period. The *Borei*-class SSBN (Project 955) began in the late 1980s but has been subject to redesign work. This has extended the construction period. The *Yuri Dolgoruky* was laid down in 1996 but not transferred to active service until 2013. Masorin outlined surface warship deliveries for 2007, and they could accurately be described as modest.

Two weeks after Masorin's article, Pavel Felgenhauer, a well-known military journalist, published a rebuttal, accusing the admiral of playing "atomic roulette" in the Navy's gamble on the Bulava SLBM for the *Borei*-class SSBNs. He questioned whether the tests of the Bulava missile from the *Dmitry Donskoy*, a *Typhoon*-class SSBN fitted with one launch silo for the Bulava missile, were relevant to the *Borei*-class boats. He compared the record of successes and failures with the Bulava to those with the U.S. Navy's Trident I and Trident II missile programs (an unfavorable comparison for the Bulava). He did not point out that the Tridents were solid-fueled SLBMs and therefore more reliable and safer than liquid-fueled missiles like the Sineva, which he proposed to replace the Bulava on the *Borei*-class SSBNs. Felgenhauer concluded by questioning the haste put into the Bulava program, saying that there was no risk of conflict, and so no game of roulette with state resources was justified. While aiming his shot at Masorin and the Navy, he concluded with a blow to Putin:

The Americans, using technical means of exploitation and Russian telemetry data on missile launches transmitted to

them by START-1 seem to be more aware of our Armed Forces and the real course of the test 'Bulava' than leadership in the Kremlin.¹⁷⁷

Masorin's tenure as C-in-C Navy ended abruptly in mid-September. In August, he had traveled to the United States for consultations with Admiral Michael Mullen, Chief of Naval Operations. Mullen favorably described the level of contacts and exchanges between the U.S. Navy and that of Russia in positive terms. In the course of the visit, Mullen presented to Masorin the "Legion of Honor." The award given by President George W. Bush was a high honor and marked the high-water mark of bilateral naval cooperation.¹⁷⁸

Shortly after his return to Moscow, Masorin was informed that he would be retired from active service. The official explanation for the retirement was Masorin's age. He had turned 60 in August.¹⁷⁹ However, other senior officers had been retained after turning 60. This led to speculation about other reasons. Some saw it as an attempt by new Minister of Defense Anatoly Serdyukov to put in place a senior leadership that would follow his policy on cutting personnel costs.¹⁸⁰ Others speculated that the objective was to purge those who had been "Ivanov" men.¹⁸¹ Sources in the Ministry of Defense spoke of Masorin as a "temporary C-in-C" to provide stability and order after the problems associated with Admiral Kuroedov's leadership. Those associated with naval shipbuilding charged Masorin with being more of an "orator than a strategist" and not paying attention to the needs of the military-industrial complex.¹⁸² As a parting shot, the military press accused Masorin of not addressing the contingency of losing the use of Sevastopol as a base for the Black Sea Fleet, proposals for expanding the port at Novorossiysk, or

proposals for building a new naval base south of Novorossiysk at Gelendzhik or Tuapse.¹⁸³ No mention was made of the “Legion of Honor” he had received from the Americans. The less said the better.

The same sources enthusiastically greeted Masorin’s successor, Admiral Vladimir Sergeevich Vysotsky (born 1954 in Lvov region of Ukraine). Putin announced his appointment on September 11, and Minister of Defense Serdyukov presented the new C-in-C Navy to the Main Naval Staff in Moscow. Vysotsky began his naval career with the Black Sea Fleet, then served with the Pacific Fleet as a surface warfare officer, and then as a senior officer on board the *Minsk*, a *Kiev*-class aircraft carrying cruiser. In 1990, he was appointed captain of the *Varyag*, another aircraft carrying cruiser under construction in Nikolaev, Ukraine. With the end of the Soviet Union, the *Varyag* was not completed but sold to China for salvage. Thereafter, Vysotsky returned to the Pacific Fleet. In 1992, he was appointed deputy commander of the *Minsk*, which shortly thereafter suffered a major accident that led to its retirement and then sale to Chinese interests as a display for an amusement park in 1994. Vysotsky continued service with the Pacific Fleet as commander of a division of missile cruisers. In 1999, he graduated from the Academy of the General Staff and was assigned to the Northern Fleet, where he served as Chief of Staff of the Kola Flotilla, in which capacity he was involved in the exercising leading up to the loss of the *Kursk* and in the attempted rescue of its crew. In 2002, he became commander of the Kola Flotilla. In 2004, he was appointed Chief of Staff of the Baltic Fleet and a year later was appointed Commander of the Northern Fleet. In December 2006, he was promoted to the rank of Admiral.¹⁸⁴

His appointment as C-in-C Navy in 2007 was seen by some as the promotion of a Kuroedov loyalist, although others identified the Kuroedov line of succession via Admiral Mikhail Abramov.¹⁸⁵ Abramov's rise through the ranks under Kuroedov occurred as such: commander of the Maritime Flotilla in the Pacific Fleet from 2001-2003, Chief of Staff of the Baltic Fleet from 2003-2004, Commander of the Northern Fleet from 2004-2005, and Chief of the Main Naval Staff and Deputy C-in-C Navy from 2005 to 2009. He then retired for health reasons.¹⁸⁶ Others emphasized Vysotsky's command of the Northern Fleet and saw him as a strong supporter of the *Borei*-class SSBN program.¹⁸⁷ Yet, others emphasized his strong ties to the surface Navy, which had not been a priority under Masorin. They considered the shipbuilding industry as strong lobbyists for Vysotsky.¹⁸⁸ This commitment was especially true for carrier-based naval aviation, which became a major theme of his tenure as C-in-C Navy.

In his first Navy Day speech as Glavkom, Admiral Vysotsky outlined a plan to add six carrier groups to the Navy: three with the Northern Fleet and three with the Pacific Fleet.¹⁸⁹ He spoke of these six groups as a "Maritime Aviation System (MAS)," closely tied to "space grouping, air forces, and systems of air defense."¹⁹⁰ Follow-on articles put the MAS in the context of a much-expanded program for armaments, beginning in 2010 and including the continuation of the *Borei* program, more surface combatants, and aircraft-carrying ships that would be part of MAS.¹⁹¹ In October 2008, *Izvestiia* published an extensive article on a nuclear-powered aircraft-carrying ship, which was supposed to be the heart of the MAS, on which construction would begin in 2012. The article quoted both President Dmitry Medvedev and Defense Minister

Serdyukov on this planned acquisition.¹⁹² The author of the article, a well-known defense journalist, actually engaged in bait and switch, giving the article the title, “What Will the Carrier of the Future Be Like?” and then describing the ship in detail as an “aircraft-carrying cruiser,” which looked very much like the *Kuznetsov*.

In early 2008, Putin announced that he would not run for President of Russia in 2008 and that he would support Medvedev as a candidate for President on the United Russia ticket. Medvedev won the presidency with ease in March 2008, receiving over 70 percent of the vote. Medvedev and Putin effectively changed chairs in 2008. The Russian Government was in a transition stage over the summer of 2008.

THE NAVY’S RECOVERY AND THE RUSSO-GEORGIAN WAR, 2008

However, other events would very shortly change the perspective of the C-in-C Navy on the threat environment and the evolution of the Navy’s structure. In July, prior to Navy Day, Vysotsky had spoken of international naval cooperation, especially activities with NATO partners, as an important part of the activities of the Black Sea Fleet, mentioning Black Sea Forces (BLACKSEAFOR) and Black Sea Partnership 2008 in that context.¹⁹³ None of this reflected Russian political and military analysis of the situation with regard to Russian-Georgian relations and the likelihood of conflict in South Ossetia and Abkhazia in the summer of 2008. In June, the *Foreign Military Observer* published an assessment of military-political situation in the countries of the Black Sea-Caspian zone.¹⁹⁴ The authors focused on the development of military ties between the United States and Georgia, noting the effort of the

Americans to secure Georgia and Ukraine's membership in NATO. They also mentioned the emergence of a coalition of states opposing Russian interests in the Organization for Democracy and Economic Development (ODED) composed of states with pro-Western foreign policies: Georgia, Ukraine, Azerbaijan, and Moldova (GUAM). The authors connected this with increasing tensions in the two breakaway regions from Georgia: South Ossetia and Abkhazia. They noted that the Georgian leadership spoke of a "threat from the North," and did not exclude the possibility of using force to bring both Abkhazia and South Ossetia back under Georgian control.¹⁹⁵ The article concluded that the high level of interest by external powers was based on access to energy resources and transit rights. Their analysis objectively could be described as that of a pre-conflict assessment by an interested regional power anticipating an outbreak of hostilities.¹⁹⁶ In early July, another article appeared which discussed Sevastopol-Crimea as the "capital of the Black Sea" from which naval air forces could dominate the entire sea. The article recalled Stalin's remarks during the Great Patriotic War that Crimea was "an unsinkable aircraft carrier." The author suggested that this fact should never be lost from sight.¹⁹⁷

In July, the Russian Ministry of Defense initiated Kavkaz-2008, an exercise covering the entire region. The scenario for the exercise was conducting counter-terrorist operations in the region of the North Caucasus with the units of the Black Sea Fleet engaged in "anti-piracy" operations. The General Staff and the North Caucasus Military District provided direction. In early July, Admiral Vysotsky visited Novorossiysk to assess the expansion of that port of the last year and assess its ability to support the elements of the Black Sea

Fleet operating along the eastern coast of the Sea.¹⁹⁸ The admiral was particularly concerned with increasing support for naval presence in the Mediterranean and enhancing the role of the Black Sea Fleet “to increase the role of the navy as a stabilizing factor on the southern naval direction.”¹⁹⁹ While Kavkaz-2008 was primarily a ground forces exercise, the Navy did play a role in all phases. The hypothetical enemy was international terrorist groups seeking to infiltrate Russia by land and sea routes in both the Black and Caspian Seas. These phases were described as addressing questions “of piracy, poaching, and protection of shipping and industrial activity.”²⁰⁰ The second stage of the exercise included amphibious landings by the Black Sea Fleet and the Caspian Flotilla.²⁰¹ On May 31, about month before the start of Kavkaz-2008, 400 Russian railroad troops entered Abkhazia with the task of improving the rail line between Sukhumi and Ochamchira, just north of the Abkhazian-Georgian border over the next 2 months. This involved relaying track, rebuilding railroad bridges across the Kodor and Mokva rivers, and generally improving rail infrastructure along the line. The Georgian response was to categorize this action as part of a Russian plan to annex both South Ossetia and Abkhazia, to accuse the Russians of deploying 500 airborne troops to defend the rebuilt rail line, and to use these events as a further indicator of an imminent conflict between Russia and Georgia.²⁰²

By the time, Kavkaz-2008 was winding up and the railroad work was being completed, there were indications of growing hostilities on the South Ossetia-Georgia border. Georgian shelling of the South Ossetian capital, Tskhinvali, had increased. There were more border skirmishes between Georgian and South Ossetian troops and more arrests of civilians along the

border.²⁰³ As the conflict increased, Russian media suggested that the Saakashvili government was not interested in a peaceful solution by means of international mediation.²⁰⁴ By late July, Secretary of the Security Council of South Ossetia Anatoly Barankevich stated that there was a high probability that a new Georgian-Ossetian war was imminent.²⁰⁵ A mobilization of forces in South Ossetia was going forward, and volunteers from North Ossetia were arriving daily. The word to Moscow was that South Ossetia would fight with or without Moscow's support.²⁰⁶ In Moscow, there were those who, remembering the performance of the Russian Army in the first Chechen war, were quite sure that Russian military involvement would be a disaster. Felgenhauer wrote the Georgian Army was an outstanding fighting force: "Mikhail Saakashvili has created the best army in the post-Soviet space."²⁰⁷ This was in answer to an earlier article by Aleksandr Khramchikhin in which he warned that Saakashvili's forces would face defeat in a war over South Ossetia.²⁰⁸ Felgenhauer envisioned a protracted war in which Georgian partisans equipped with the latest Western arms would defeat an incompetent Russian Army.²⁰⁹ After reflecting on the sorry record of the Georgian armed forces in trying to take back South Ossetia and Abkhazia in 2004, Felgenhauer had the highest praise for rebuilding the Georgian armed forces under Saakashvili since his "Rose Revolution" in November 2003. He spoke of the Georgian President in the following terms: "Saakashvili is a powerful, intelligent, goal-oriented and very energetic national leader." He compared him favorably to Peter the Great. He described the reformed Georgian Army as an "innovation army" and claimed that "they had built from scratch an armed forces of a new look."²¹⁰

He went further, pointing out that Russian sanctions had not worked against Georgia under Saakashvili, and government policies had expedited economic development and increased revenues, which had made possible increased defense spending between 2004 and 2008. The Georgia Army was no longer a conscript force but a 30,000-man professional army backed by over 100,000 reservists organized into a volunteer national guard based on the U.S. model with four cadre brigades in peacetime. This force was to be integrated into a “total defense concept” that included territorial battalions armed with Soviet vintage arms and equipment.

Felgenhauer reported that the regular Georgian Army was composed of six regular brigades. Four of these are infantry brigades with a strength of 3,300 personnel organized into three infantry battalions, one mechanized battalion, one artillery battalion, plus combat support units. Recently, Georgia increased the size of tank forces in each brigade from one to two tank companies and a motorized infantry company. Many Georgian troops had served in the occupation of Iraq, and in the spring of 2008, over 2,000 were deployed there. The other two brigades making up the Georgian Army are an artillery brigade with self-propelled missiles and towed and self-propelled artillery and a special forces brigade, which had at its disposal transport and armed helicopters. The Georgian Air Force was organized into six squadrons with limited ground-attack capabilities and battlefield drones for intelligence collection. The Georgian Navy was small, equipped with two obsolete Soviet-era missile cutters, which had been rearmed with French Exocet missiles, several patrol craft, and some small landing craft. Repeating the assessment of Georgian officers, Felgenhauer said

the Navy was weak and only good for showing the flag. Then he stated that the naval forces available to Abkhazia were even weaker.²¹¹ In conclusion, Felgenhauer expected the Georgians to fight for every inch of their territory and for the return of Abkhazia and South Ossetia to Georgia. As for the Russian military, Felgenhauer did not expect much from it.

In the words of Deputy Minister of Defense, General Aleksandr Kolmakov, the training and equipping of our troops and Naval forces 'correspond to the level of the 1960's and 1970's.' Therefore, it will be difficult for our unreformed armed forces to effectively fight in foreign territory through an impassable winter and impossible summer in the Caucasus Mountains.²¹²

Felgenhauer was correct about the obsolescence of some of the kit of the Russian armed forces. However, he was terribly wrong about the combat quality of the Georgian Army. This point was made quite strongly by Aleksandr Khramchikin in his response. "The Georgian Army was no panacea for the geostrategic mess which Tbilisi found itself." He warned that the best army in post-Soviet space is the Russian Army and pointed to increased defense spending since 2000.²¹³ Felgenhauer had suggested that the modern Georgian Army would fight in a Western mode and impose "shock and awe" upon its enemies, including the Russian armed forces. However, "shock and awe" depended upon an initial air operation to shape the future contours of such a conflict, and Georgia lacked the air force to conduct such an operation. Khramchikin concluded: "Tbilisi has a formal right to restore the territorial integrity of the republic by military means (as Russia did in Chechnya). But it is not able to."²¹⁴

When Georgian troops attacked and killed Russian peacekeepers in Tskhinvali, Moscow moved rapidly to intervene. Georgian special forces sent to close the Roki Tunnel connecting Russia with South Ossetia failed. Russian units had been assembled for Kavkaz-2008. Given the tensions in the region, the units had not gone home; rather, they moved rapidly through the tunnel and into South Ossetia. The Navy's role in the Russo-Georgian War involved the transport and landing of an airborne battalion from Novorossiysk to Sukhumi, Abkhazia, in what was called a "peacekeeping operation," but which, in fact, opened a second front in Abkhazia, which quickly took the fight into the Kodori Gorge and south from Ochamchira toward Senaki and the Georgian naval base at Poti.²¹⁵ Unnamed sources in the Georgian Ministry of Foreign Affairs reportedly told *Kommersant* that a second front would mean total defeat. "If Russia decided to invade Georgia, then in a war on two, or even one, front with Russia, it would have little chance."²¹⁶ This statement underscores the terrible risk Saakashvili had been willing to take in August 2008, on the assumption that Russia would not intervene.

From the start, it was quite clear that Russia had prepared for a possible conflict in Abkhazia and South Ossetia and had prepared for a wider war than simply a struggle for control of Tskhinvali. The naval operation was launched from Sevastopol and was composed of a task force, including the missile cruiser *Moskva*, the flag ship of the fleet; the patrol ship *Smetliviy*; support craft; and three large, amphibious assault ships, which had sailed earlier to Novorossiysk.²¹⁷ When the task force had assembled at Novorossiysk, the warships moved south; executed the landing at Sukhumi; engaged a Georgian squadron; sank one of the missile

boats; and blockaded the Georgian coast, preventing the movement of ships carrying oil and grain. Captain First Rank Igor Dygalo, speaking for Navy high command, reported that on August 10, four Georgian missile craft attacked Russian warships. They were met by fire; one of the Georgian vessels was sunk, and the other three withdrew toward Poti.²¹⁸ On August 12, the Russian Ministry of Defense explained these actions as the deployment of a peacekeeping force. The Russian General Staff denied that any combat operations were going on in Abkhazia and said that the Black Sea Fleet's deployment was strictly connected with the fighting in South Ossetia. Responding to the concerns of the Ukrainian Government that a combat role for the Black Sea Fleet could bring Ukraine into the conflict, Russia denied any such role.²¹⁹ Any fighting in Abkhazia was being done by the Abkhazian armed forces without Russian assistance.²²⁰

Retired Admiral Vladimir Chernavin was more forthcoming:

The navy had performed important strategic-operational tasks during the conflict. The planning of the operation, the actions of the assigned forces were skillfully executed and are the result of the professional and well-informed decisions of the Ministry of Defense and the C-in-C Navy. . . . The Black Sea Fleet has once again shown that is an important geopolitical instrument in maintaining security, peace and stability on the southern naval direction.²²¹

The Russo-Georgian War rightly can be seen as the first manifestation of the recovery of the Russian Navy from 2 decades of crisis and decline. It could also be called the first serious blow to the post-Cold War international system. The Russian tandem of Medvedev and Putin in the face of a challenge to stability in a region, which they considered of vital interest to Russia, acted

and acted decisively. Ronald Asmus recognized the consequences of those actions, but the United States and NATO were in no position to challenge Russia militarily.²²² Russians, on the other hand, reaped the fruits of military success and recognized the independence of both South Ossetia and Abkhazia. Reformers in the Russian military did a commendable job of assessing lessons learned and made weaknesses revealed in the Russo-Georgian War into items for reform under the “new look.”²²³

Admiral Vysotsky remained C-in-C Navy until 2012, but he never again enjoyed such a high point in his wartime leadership. With the Ministry of Defense and the General Staff taking seriously the need to further modernize the Russian armed forces under the banner of “the new look,” the Navy leadership did get a real opportunity to reshape the force and bring about serious modernization. Vysotsky, who had commanded the *Minsk* aircraft-carrying cruiser in the Pacific, now saw an opportunity to accelerate the acquisition of similar ships from foreign yards, in particular the French *Mistral* protection and command ship (*bâtiments de projection et de commandement*), also known as an “amphibious assault ship.” The *Mistral* could carry 450 assault troops, armored vehicles, and a force of transport helicopters and gunships. Admiral Vysotsky and Chief of the Russian General Staff General Nikolai Makarov found a common cause on this foreign procurement of a new class of warship. This was a trade-off of a new class of ship for the promised MAS, which was to include six aircraft carriers.²²⁴

However, they quickly ran into major opposition. First, Georgia, mindful of the role of the Black Sea Fleet in the recent war, protested the possible sale to Russia.²²⁵ Russian shipbuilders who said they could do

the same ship at less cost opposed the purchase of the *Mistral*.²²⁶ Opponents accused the Ministry of Defense of misspending funds, setting the wrong priorities, and even undermining the terms of service for *kontaktniki* to fund the French purchases that were not oceanic warships.²²⁷ Critics in the Navy pointed out the long delays in construction in Russian yards, the poor workmanship, and the increase in costs over time. Ultimately, the Navy won, and a Russo-French agreement was negotiated in December 2010, with two ships to be built in French yards and two follow-on ships built in Russian yards.²²⁸ The *Mistral* agreement was the highpoint of Western naval cooperation with Russia. By 2012, the *Proceedings of the U.S. Naval Institute* was impressed enough to carry an article devoted to the “renaissance” of the Russian Navy, pointing to how different its role and missions were from those of Gorshkov’s navy in the late 20th century.²²⁹

As that article was being published, Admiral Vysotsky’s tenure as C-in-C Navy was ending. In part, it was the revolt of the generals against Minister of Defense Serdyukov and his “new look” military, which also cost General Makarov his position as Chief of the General Staff. At the same time, President Medvedev reprimanded Vysotsky in the summer of 2010 for losses that the navy suffered during the major forest fire near Kolomensk outside of Moscow, in which the Central Aviation-Technical support base for Russian naval aviation burned to the ground.²³⁰

What we have tried to show here is that, during his tenure, Putin understood Russian naval power in the sense that Peter the Great described a wise ruler who knew how to employ his army and navy to achieve strategic goals. It should have been clear from the discussion that the Euromaidan Revolution in Kyiv in

February 2014, with its implicit challenge to Russian naval exploitation of its key strategic base in the Black Sea, would move Putin to mount a coup de main to occupy the entire peninsula. He would take over the existing defense infrastructure, neutralize Ukrainian Navy and Army personnel, and invest heavily to ensure that Crimea would once again be an “unsinkable aircraft carrier” and base from which to project power across the entire littoral. Like Peter, he now faces strategic risks and opportunities in the Baltic, the Black Sea and the Middle East. It is still unclear whether his instruments will give him a safe margin for action or demand that he seek to build new coalitions to support Russian interests across Eurasia.

ENDNOTES - CHAPTER 13

1. *Kniga Morskoi Ustav, Naval Regulations*, St. Petersburg, Russia: Sanktpeterburgskaia tipografiia, 1720.

2. “Vladimir Putin: Voенno-morskoi flot eto gordost” (“Navy Is Russia’s Pride”), *Tochka*, July 26, 2015, available from <http://tochka39.ru/novosti-regiona/vladimir-putin-voенno-morskoi-flot-eto-gordost-rossii/>, accessed July 27, 2015.

3. I. Shestakov, “Starye mysli na novoe delo” (“Old Thoughts on a New Matter”), *Morskoi sbornik*, No. 3, 1993, p. 8.

4. A. Kolchak, “Kakoi nuzhen Rossii flot” (“What Kind of a Navy Does Russia Need?”), *Morskoi sbornik*, No. 3, 1993, pp. 24-29. The Soviet regime treated Kolchak as an “enemy of the people,” but the editors of *Morskoi sbornik* brought him back into the ranks of the naval professionals who had shaped the Navy over the preceding century and a half.

5. “Istoricheskoe zacedanie Gosudarstvennoi Dumy 6 Iunia 1912 goda” (“The June 6, 1912, Historic Session of the State Duma”), *Morskoi sbornik*, No. 3, 1993, pp. 29-43.

6. "Kakoi R.S.F.S.R nuzhen flot" ("What Kind of a Navy Does the Russian Federation Need"), *Morskoi sbornik*, No. 3, 1993, pp. 37-43; S. Gorshkov, "Problemy sovremennogo flota" ("The Navy's Current Challenges"), *Morskoi sbornik*, No. 3, 1993, pp. 43-48; I. Kapityanets, "Kakim byt' Rossiiskomu voennomu flotu" ("What Must the Russian Navy Be Like?"), *Morskoi sbornik*, No. 3, 1993, pp. 48-54.

7. Kapitanets, "Kakim byt' Rossiiskomu voennomu flout," p. 54.

8. K. A. Stalbo, *Voenno-morskie sily v politike SShA* ("The Role of the Navy in the United States Policies"), Moscow, Russia: Voenizdat, 1990.

9. "Operatsiia 'Begemot-2': Zalp ballisticheskimi raketami" ("Operation 'Hippopotamus-2': Salvo with ballistic missiles"), available from <http://masterok.livejournal.com/2918380.html>, accessed May 15, 2016.

10. Ibid.

11. Makhmut Akhmetovich Gareev, *If War Comes Tomorrow?: The Contours of Future Armed Conflict*, London, UK: Frank Cass, 1998, p. 62.

12. K. A. Stalbo, "Prestuplenie veka: Ob'ekt i podel'niki" ("Crime of the Century: The Target and the Accomplices"), *Rossiiskaia gazeta*, June 24, 1993.

13. "Admiral, uchenyi, patriot: K 100-letiiu so dnia rozhdeniia vitse-admirala" ("Admiral, Scholar, Patriot: 100-Years Anniversary of Vice-Admiral K. A. Stalbo"); K. A. Stalbo, *Morskoi sbornik*, No. 1, January 2013, pp. 11-43; M. Monakov, "Sergei Georgievich Gorshkov stranitsy biografii: Voina" ("Sergei Georvgievich Gorshkov Pages from the Biography: The War"), *Morskoi sbornik*, No. 4, April 2010, pp. 15-31.

14. K. A. Stalbo, "Prestuplenie veka: Ob'ekt i podel'niki" ("Sergei Georvgievich Gorshkov. Pages from the Biography: The War"), *Rossiiskaia gazeta*, June 24, 1993.

15. Ibid.

16. V. D. Dotsenko, *Morskoi biograficheskii slovar'* ("Naval Biographical Dictionary"), St. Petersburg, Russia: Logos, 1995.

17. Andrei Matiakh and Grigorii Nesmianovich, "Dogovor mezhdu Rossiei i Ukrainoi" ("Treaty Between Russia and Ukraine"), *Krasnaia zvezda*, June 3, 1997.

18. Viktor Iadukha, "Iurii Luzhkov neozhidanno vysadilsia v Sevastopole" ("Iurii Luzhkov Made an Unexpected Landing in Sevastopol"), *Segodnia*, January 18, 1997.

19. Anatolii Stasovskii, "Voennaia doktrina Rossii: Novoe ponimanie bezopasnosti strany" ("Russia's Military Doctrine: A New Concept of National Security"), *Krasnaia zvezda*, November 4, 1992; Pavel Grachev, "Reforma vooruzhennikh sil i voennaia doktrina Russii" ("Reform in the Armed Forces and Russia's Military Doctrine"), *Vestnik voennoi informatsii*, November 1, 1992; Aleksandr Golts, "Interesy Rossii: Kak my ikh ponimaem—Blizhnee zarubezk'e ili vse taki Sodruzhestvo?" ("Russia's Interests: How We Understand Them—a Near Abroad or a Commonwealth, After All?"), *Krasnaia zvezda*, November 20, 1992; "Aktual'noe interv'iu. Bezopasost' gosudarstva? Nashe prioritnoe naravlenie" ("An Interview on a Pressing Issue. National Security? Our Top-priority Orientation"), *Krasnaia zvezda*, November 6, 1992.

20. Mikhail Veller, "Petr i ego reformy: Kak Rossiia stala velikoi derzhavoi" ("Peter and His Reforms: How Russia Became a Great Power"), *Argumenty i fakty*, February 3, 2010.

21. This view of a modern naval establishment is at the heart Joseph Robson Tanner's treatment of Samuel Pepys and his role in the development of the Royal Navy during the Restoration. See Joseph Robson Tanner, *Samuel Pepys and the Royal Navy*, Lees Knowles Lectures Delivered at Trinity College in Cambridge, November 6, 13, 20, and 27, 1919, Cambridge, UK: Cambridge University Press, 2013.

22. Carlo M. Cipolla, *Guns, Sails, and Empires: Technological Innovation and the Early Phases of European Expansion, 1400-1700*, New York: Minerva Press, 1965.

23. Valentin Boss, *Newton and Russia: The Early Influence, 1698-1796*, Cambridge, MA: Harvard University Press, 1972.

24. Aleksandr Pushkin, "Mednyi vsadnik" ("The Bronze Horseman"), *Sobranie sochinenii v 10 tomakh Collected Works in 10 Volumes, Vol. 3*, n.d., available from <http://rov.ru/pushkin/01text/02poems/01poems/0795.htm>, accessed May 24, 2016.

25. Vladimir Putin, "Zhizn' takaia prostaia shutka i zhestokaia" ("Life Is Such a Simple and Cruel Thing"), *Russkii pioner*, No. 67, April 30, 2015, available from <http://ruspioner.ru/cool/m/single/4655>, accessed July 20, 2016. See also Fiona Hill and Clifford G. Gaddy, *Mr. Putin: Operative in the Kremlin*, Washington, DC: Brookings Institution Press, 2013, pp. 76-78.

26. The Leningrad experience during the Great Patriotic War left deep impressions on those who endured and survived. See Richard Bidlack and Nikita Lomagin, *The Leningrad Blockade, 1941-1944: A New Documentary History from the Soviet Archives*, New Haven, CT: Yale University Press, 2012; Cynthia Simmons and Nina Perlina, *Writing the Siege of Leningrad: Women's Diaries, Memoirs, and Documentary Prose*, Pittsburgh, PA: University of Pittsburgh Press, 2002; and Robert Dale, *Demobilized Veterans in Late Stalinist Leningrad: Soldiers to Civilians*, New York: Bloomsbury Academic, 2015.

27. S. O. Matveev, "K istorii vozniknoveniia i razvitiia siuzheta 'Petr I, vysekaiushchii statuiu Ross'" ("Revisiting the Issue of the Origin and Development of the Subject 'Peter Carving a Statue of Russia'"), in B. V. Sapunov and I. N. Ukhanova, eds., *Kul'tura i iskusstvo Rossii v XVIII veke (Culture and Art of Russia in the 18th Century)*, Leningrad, Russia: Iskusstvo, 1981, pp. 26-43; Anatoli Ivanovich Kamenev, "Pechat' Petra Velikogo" ("The Seal of Peter the Great"), *Istoriia Gosudarstva Rossiiskogo: Mysli na budushche (History of the Russian State: Thoughts for the Future)*, July 7, 2012, available from http://artofwar.ru/k/kamenew_anatolij_ivanovich/pechatxpetrawelikogo.shtml, accessed April 15, 2016.

28. Richard Hellie, *Enserfment and Military Change in Muscovy*, Chicago, IL: The University of Chicago Press, 1971, pp. 258-259.

29. S. G. Gorshkov, *Vo flotskom stroiu (My Service in the Navy)*, St. Petersburg, Russia: Izdatel'stvo Logos, 1996, p. 181.

30. "V. Putin: Reiting, otnshenie, otsenki raboty—Indikatory otnosheniia k glave gosudarstva" ("V. Putin: Rating, Perceptions,

Views on Work—Indicators of Attitudes Toward the Head of the State”), *FOM-soobshestvo*, November 28, 2016, available from <http://fom.ru/politika/10946>, accessed November 20, 2016.

31. A. A. Rodionov, ed., *Nauka Sankt Peterburga: Morskaiia Moshch' Rossii (Saint Petersburg's Science and Russia's Sea Power)*, Vol. 1, St. Petersburg, Russia: Nauka, 2001. This volume addresses the contributions of St. Petersburg/Leningrad to shipbuilding, the creation of naval weapons systems, instrumentation, cartography, maritime sciences, and naval education.

32. Aleksandr Rar, *Vladimir Putin: Nemets v Kremle (Vladimir Putin: A German in the Kremlin)*, Moscow, Russia: Olma-Press, 2002.

33. Deutscher Bundestag, “Wortprotokoll der Rede Wladimir Putins im Deutschen Bundestag am 25.09.2001” (“Transcript of Vladimir Putin’s Speech at the German Bundestag on 09.25.2001”), September 25, 2001, available from https://www.bundestag.de/parlament/geschichte/gastredner/putin/putin_wort/244966, accessed July 15, 2016.

34. David Hoffman, “Miscalculations Paved Path to Chechen War,” *The Washington Post*, March 20, 2000, available from https://www.washingtonpost.com/archive/politics/2000/03/20/miscalculations-paved-path-to-chechen-war/e675f17a-d286-4b5e-b33a-708d819d43f0/?utm_term=.1d63534d5ff3.

35. Vladimir Bushin, “Edinstvennyi shans Putina” (“Putin’s Only Chance”), *Zavtra*, April 16, 1999.

36. “Pod predsedatel’stvom prem’era: Voprosy na Sovbeze—Yugoslaviia, Chechnia, Skuratov” (“Under the Chairmanship of the Prime Minister: Issues at the Security Council—Yugoslavia, Chechnya, Skuratov”), *Sovetskaia Rossiia*, April 24, 1999; “Rossiia tronulas’ v Evropu: Kto znal i kto ne znal o marshe Rossiiskikh desantnikov v Kosovo?” (“Russia Rolled into Europe: Who Knew and Who Did Not Know About the March of the Russian Paratroopers Toward Kosovo?”), *Novaia gazeta*, June 14, 1999; “Balkany: Rossiia Otstaivaet svoi strategicheskie interesy” (“The Balkans: Russia Asserts Its Strategic Interests”), *Sankt Peterburgskie vedomosti*, June 15, 1999; Sergei Sokut, “Balkanskii variant ne

proshel" ("The Balkan Version Did Not Succeed"), *Nezavisimaia gazeta*, June 24, 1999.

37. Sergei Sokut, "Nadezhnoe sderzhivanie men'shimi silami" ("Reliable Deterrence with Smaller Forces"), *Nezavisimoe voennoe obozrenie*, October 16, 1998.

38. "Vstrechi v Kremle" ("Meetings at the Kremlin"), *Sankt Peterburgskie vedomosti*, May 20, 1999.

39. Jacob W. Kipp, "Putin and Russia's War in Chechnya," in Dale Herspring, ed., *Putin's Russia: Past Imperfect, Future Uncertain*, Lanham, MD: Rowman & Littlefield Publishers, 2002.

40. S. G. Gorshkov, *Morskaia Moshch' gosudarstva (The Sea Power of the State)*, Moscow, Russia: Voenizdat, 1976. See also S. G. Gorshkov, *The Sea Power of the State*, Annapolis, MD: Naval Institute Press, 1979.

41. S. G. Gorshkov, *Morskaia Moshch' gosudarstva (The Sea Power of the State)*, 2d Ed., Moscow, Russia: Voenizdat, 1979, pp. 7-8.

42. *Ibid.*, p. 10.

43. *Ibid.*, pp. 414-415.

44. N. V. Ogarkov, *Istoriia uchit bditel'nosti (History Teaches Us to Be Vigilant)*, Moscow, Russia: Voenizdat, 1985; Jacob W. Kipp, "Conventional Force Modernization and the Asymmetries of Military Doctrine: Historical Reflections on Air/Land Battle and the Operational Manoeuvre Group," in Carl G. Jacobsen, ed., *The Uncertain Course: New Weapons, Strategies and Mind Sets*, Stockholm International Peace Research Institute, Oxford, UK: Oxford University Press, 1987, pp. 137-166; Jacob W. Kipp, "The Labor of Sisyphus: Forecasting the Revolution in Military Affairs during Russia's Time of Troubles," in Thierry Gongora and Harald von Riekhoff, eds., *Toward a Revolution in Military Affairs? Defense and Security at the Dawn of the Twenty-First Century*, Westport, CT: Greenwood Press, 2000, pp. 87-104; Mikhail Timoshenko, "Kak Amerikantsy ukrali 'doktrinu marshala Ogarkova i sovershili revoliutsiiu v voennom dele" ("How Americans Stole Marshal Ogarkov's Doctrine and Carried Out a Revolution in Military

Affairs”), *Komsomol'skaia pravda*, July 10, 2010, available from <http://vlasti.net/news/95196>, accessed May 10, 2016.

45. “Nagnetaiut naprazhennost' vokrug Folklenskikh (Mal'vinskikh) ostrovov” (“The Tension Around the Falkland [Malvinas] Islands Is Building Up”), *Pravda*, April 7, 1982, p. 5; “K Anglo-Argentinskomu konfliktu” (“On the Subject of the Anglo-Argentine Conflict”), *Izvestiia*, April 11, 1982, p. 3; V. Tarasov, *Den' planety: Sobytiia, khronika, kommentarii* (*One Day in the Life of the Planet: Events, Chronicle, Commentary*), *Izvestiia*, April 17, 1982, p. 4; V. Mikheev, “Den' planety: Sobytiia, khronika, kommentarii” (“One Day in the Life of the Planet: Events, Chronicle, Commentary”), *Izvestiia*, April 28, 1982, p. 5.

46. Jacob W. Kipp, “Naval Art and the Prism of Contemporaneity: Soviet Naval Officers and the Lessons of the Falklands Conflict,” *Stratech Studies Series*, No. SS83-2, College Station, TX: Center for Strategic Technology, Texas Engineering Experiment Station of the Texas A&M University System, 1984, available from <http://www.dtic.mil/dtic/tr/fulltext/u2/a194241.pdf>.

47. A. Gontaev, “Flot podoshel k ostrovami” (“The Fleet Has Approached the Islands”), *Pravda*, April 26, 1982, p. 5.

48. K. A. Stalbo, “The Naval War in the South Atlantic,” *Krasnaia Zvezda*, May 23, 1982.

49. I. Uskov, “Uroki anglo-argentinskogo konflikta in role korablei v bor'be na more” (“Lessons Learned from Anglo-Argentine Conflict and the Role of Ships in Maritime War”), *Morskoi sbornik*, No. 11, November 1982, pp. 87-92; B. Rodionov and N. Novichkov, “Radioelektronnaia voina v iuzhnoi Atlantike” (“Cyber War in the South Atlantic”), *Morskoi sbornik*, No. 2, February 1983; and N. Evgen'ev, “Podvizhnoi tyl angliiskikh VMS v iuzhnoi atlantike” (“Mobile Logistics of the British Armed Forces in South Atlantic”), *Morskoi sbornik*, No. 4, April 1983, pp. 78-80.

50. Jacob W. Kipp, “From RYaN to Reykjavik: The Role of Nuclear Weapons in Ending the Cold War,” *Essay*, Enduring Legacy Project, Lexington, VA: John A. Adams '71 Center for Military History and Strategic Analysis, Virginia Military Institute, November 2014.

51. Sergei Gorshkov, "Okeanskii shchit Rodiny" ("The Oceanic Shield of Our Motherland"), *Pravda*, July 28, 1985, p. 8.

52. S. G. Gorshkov, *Vo flotskom stroiu (My Service in the Navy)*, St. Petersburg, Russia: Logos, 1996.

53. N. P. Viunenko, B. N. Makeev, V. D. Skugarev, and S. G. Gorshkov, ed., *Voenno-morskoi flot: Rol', perspektivy razvitiia, ispol'zovanie (The Navy: Its Role, Outlook for Future Development, Its Use)*, Moscow, Russia: Voenizdat, 1988.

54. A. Kokoshin and V. Larionov, "Kurskaia bitva v svete sovremennoi oboronitel'noi doktriny" ("Battle of Kursk in the Context of Today's Defensive Doctrine"), *Mirovaia ekonomika i mezhdunarodnye otnosheniia*, August 1987, No. 8. pp. 32-40.

55. M. S. Monakov, *Glavkom: Zhizn' i deiatel'nost' Admirala Flota Sovetskogo Soiuzs S. G. Gorshkova (Commander-in-Chief: The Life and Work of Admiral of the Soviet Navy S. G. Gorshkov)*, Moscow, Russia: Kuchkovo pole, 2008, p. 633.

56. Ibid.

57. Ibid.

58. Ibid., pp. 633-634.

59. Ibid., p. 636.

60. "Ekranoplany FSB budut okhrianiat vodnye granitsy Rossii" ("Surface Effect Ships Will Guard Russia's Water Boundaries"), *Voennoe obozrenie*, January 24, 2012.

61. In the 1980s, U.S. naval intelligence was unsure whether Vice-Admiral Stalbo existed or was just a pseudonym for Admiral Gorshkov. U.S. attachés had very limited opportunities to request access to senior Soviet officers. The new U.S. naval attaché at the time used those occasions to request a meeting with Vice Admiral Stalbo. As such things operated then, the next occasion for an answer was the November 7 celebration. The Soviet officer who had taken the request now had an answer – it was, "He exists."

62. Nikolai Andreevich Cherkashin, *Chrezvychainye proisshestiia na Sovtskom flote (Accidents in the Soviet Navy)*, n.d., available

from http://militera.lib.ru/research/cherkashin_na01/cherkashin_na01.html, accessed December 4, 2016; "Kapitan Sablin protiv brezhnevskogo rezhima" ("Captain Sablin Is Against Brezhnev's Regime"), *Argumenty i fakty*, November 26, 2004; Aleksandr Tsymbalov, "Vooruzhennyj miatezh na Baltflote" ("An Armed Mutiny in the Baltic Fleet"), *Nezavisimoe voennoe obozrenie*, August 20, 2004.

63. "Kapitan Valerii Sablin podniat vosstanie na korable *Storozhevoi* s tsel'iu smeny partiino-gusdarstvennogo apparata" ("Captain Valerii Sablin Instigated a Mutiny Aboard the Ship *Storozhevoi* With the Aim of Changing the Party and State Apparatus"), *Calend.ru*, November 8, 2016, available from <http://www.calend.ru/event/5074/>, accessed December 4, 2016. Such post hoc actions were a regular part of the Soviet legal system, however odd it may sound to commute a sentence from execution to imprisonment after the original sentence has been carried out.

64. "Chazhma Bay, Russia: Nuclear submarine accident," n.d., available from <http://www.nuclear-risks.org/en/hibakusha-worldwide/chazhma-bay.html>, accessed November 7, 2016.

65. V. M. Khramtsov, "Pochemu iadernaia katastrofa v primor'e ne predupredila Chernobyl'?" ("Why Didn't the Nuclear Disaster in the Primorie Region Serve as a Warning to Chernobyl?"), *Taifun*, No. 4, April 1999, pp. 26-29.

66. A. Kadirli, "Komanduiushchii SNG admiral V. Chernavin vedet v baku peregovory o sud'be Kaspiiskoi flotilii" ("Commander of the CIS, V. Cherniavin, Is in Baku, Conducting Negotiations on the Fate of the Caspian Flotilla"), *Krasnaia Zvezda*, February 20, 1992; V. Mariukha, "Kaspiiskaia Flotiliia: Reshenie o razdele dostignyto ostalos' vyrabotat' mekhanizm peredachi sil i imushchestva" ("The Caspian Flotilla: the Decision On Breaking Up Has Been Reached, the Mechanism for the Transfer of Forces and Property Have to Be Worked Out"), *Krasnaia Zvezda*, April 18, 1992.

67. "Session of the Politburo of the CC CPSU, 6 October 1986," in Svetlana Savranskaya, ed., *National Security Archive Electronic Briefing Book No. 562*, October 7, 2016, available from <http://founderscode.com/russian-aggression-builds-piece-nuclear-history/>, accessed October 7, 2016.

68. I. K. Kudrin, "Gibel' K-219—khronika katastrofy" ("The Sinking of K-219—Chronicle of the Disaster"), *Taifun*, No. 6, June 1997, p. 12.

69. *Ibid.*, p. 13. The explosion and fire were not a new threat to this class SSBN. Indeed, K-219 had suffered a similar crisis earlier and had to have another missile shaft welded shut.

70. "Session of the Politburo of the CC CPSU, 6 October 1986."

71. *Ibid.*

72. *Ibid.*

73. Sergey Oboguev, "Interview with the Members of the Crew of K-219," April 8, 2007, available from <http://oboguev.livejournal.com/1396571.html>, accessed October 20, 2016.

74. Leonid Osipenko, Lev Zhil'tsov, and Nikolai Mormul, *Atomnaia podvodnaia epopeia: Podviki, heudachi, katastrofy* (*The Atomic Submarine's Saga: Heroism, Failures, Disasters*), Moscow, Russia: Izdatel'stvo A/O Borges, 1994, pp. 224-231.

75. Monakov, *Glavkom*, p. 639.

76. Maksim Klimov, "Aviatsiia VMF: Byla. Est'? Budet?" ("Naval Aviation: Did It Exist? Does It? Will It?"), n.d., available from <http://www.airforce.ru/history/naval/index.htm>, accessed July 15, 2016.

77. *Ibid.*

78. "S 2009 goda na vmf budut sluzhit' odni kontraktniki, zaiavil Glavkom" ("Beginning 2009, Only Contract Servicemen Will Serve in the Navy, Says Commander-in-Chief"), *Newsru.com*, June 23, 2007, available from <http://www.newsru.com/russia/23jun2007/masorin.html>, accessed October 5, 2016; "Skoro na korbliah VMF budut tol'ko kontraktniki" ("Soon, Only Contract Servicemen Will Serve on Navy Ships"), *Persona.rin.ru*, February 2, 2013, available from <http://persona.rin.ru/news/65199ff/skoro-na-korabliah-vmf-budut-tolko-kontraktniki>, accessed October 5, 2016; "Sluzhit' na podvodnykh lodkakh budut tol'ko kontraktniki" ("Only Contract Servicemen Will Serve on Submarines"), *Svobodnaia presa*, April 3, 2015, available from <http://svpressa.ru/war21/news/117569/>, accessed October 6, 2016.

79. Vladimir Dvorkin, "Kak raketnik raketniku" ("Like Rocketman to Rocketman"), *Nezavisimoe voennoe obozrenie*, February 20, 2009.

80. Mikhail Kardashev, "Zachem nuzhna 'Bulava,' kogda est' 'sineva'?" ("Who Needs 'Bulava,' When We Have 'Sineva'?"), *Nezavisimoe voennoe obozrenie*, March 6, 2009.

81. Jacob W. Kipp, "Russia's Northwest Strategic Direction," *Military Review*, July-August 1999, No. 4, pp. 52-65, available from <https://fas.org/nuke/guide/russia/agency/rusnwstrat.htm>.

82. Eliot A. Cohen and John Gooch, *Military Misfortunes: The Anatomy of Failure in War*, New York: The Free Press, 1990.

83. In his poem, "Poltava," Aleksandr Pushkin has Peter the Great hosting a victory banquet after Poltava. Peter raises his glass "to our teachers," by whom he means the captured Swedish commanders at the banquet and then asks: "But where is our first honored guest? Where is our first dreaded teacher whose long rage the victor of Poltava had tamed?" Aleksandr Pushkin, "Poltava," in A. S. Pushkin, *Sochineniia: Poemy, dramaticheskie proizvedenii* (Collected Works: Poems, drama), Moscow, Russia: Izdatel'stvo Khudozhestvennaia literatura, 1964, Vol. 2, pp. 199-200.

84. Robert W. Herrick, *Soviet Naval Strategy: Fifty Years of Theory and Practice*, Annapolis, MD: U.S. Naval Institute Press, 1968.

85. *Ibid.*, p. ix.

86. S. E. Zakharov, ed., *Istoriia voenno-morskogo iskusstva* (A History of Naval Art), Moscow, Russia: Voenizdat, 1969.

87. *Ibid.*, p. 561.

88. Norman Polmar and K. J. Moore, *Cold War Submarines: The Design and Construction of U.S. and Soviet Submarines, 1945-2001*, Washington, DC: Brassey's, 2003.

89. I. N. Shablikov, *Okean: Manevry Voennno-morskogo flota SSSR, provedennyye v aprele i mae 1970 g* (Ocean: Soviet Navy Exercise Conducted in April-May 1970), Moscow, Russia: Voenizdat, 1970.

90. Monakov, *Glavkom*, p. 572.
91. Monakov, "Sergei Georgievich Gorshkov stranitsy biografii," pp. 15-31.
92. *Ibid.*, pp. 29-30.
93. Sergei Gorshkov, *Red Star Rising at Sea*, Annapolis, MD: U.S. Naval Institute, 1974.
94. "Nuzhen li flot Rossii?" ("Does Russia Really Need a Navy?"), *Vremia*, V, 1863, pp. 3-48. This theme is repeated in Aleksandr Nemitts' essay on "The Naval Question in Russia," which appeared in 1912 after the disastrous defeats of the Russo-Japanese War and when Russia was, as in the 1860s, seeking to answer whether a continental power needed a Navy and, if so, where and what kind. See Aleksandr Nemits, "Morskoi Vopros v Rossii" ("The Navy in Russia"), *Morskoi sbornik*, No. 5, May 1912, pp. 17-28. See also A. E. Savinkin, ed., *Voенно-morskaia ideia Rossii: Dukhovnoe nasledie Imperatorskogo flota (The Navy Idea in Russia: The Spiritual Heritage of the Imperial Navy)*, *Rossiiskii voennyi sborenik, Vypusk*, Iss. 11, Moscow, Russia; Voennyi Universitet, Obshchestvennyi sovet, "300 let Rossiiskomu Flotu, Russkii Put'" (Military University, Public Council "300 Years of the Russian Navy"), 1997.
95. *Kniga Morskoi Ustav (Book: Naval Regulations)*, St. Petersburg, Russia: Sanktpeterburgskaia tipografiia, 1720.
96. The potentate and his arms still figures in contemporary Russian strategic discussions. See Vladimir Lebed'ko, "Prisheite 'potentatu' levuiu ruku" ("Sew the Left Arm onto 'the Potentate'"), *Nezavisimoe voенnoe obozrenie*, February 1, 2016, p. 6.
97. Robert G. Weinland, Michael K. McGwire, and James M. McConnell, *Admiral Gorshkov on "Navies in War and Peace,"* Arlington, VA: Center for Naval Analysis, Institute of Naval Studies, 1974; Ken Booth, *Strategy and Ethnocentrism*, New York: Holmes and Meier Publishers, 1979.
98. Robert G. Weinland, "Navies in War and Peace: Content, Context, and Significance," in Robert G. Weinland, Michael K. McGwire, and James M. McConnell, *Admiral Gorshkov on "Navies*

in War and Peace," Arlington, VA: Center for Naval Analysis, Institute of Naval Studies, 1974, pp. 39-40.

99. James McConnell, "Gorshkov's Doctrine of Coercive Naval Diplomacy in Both Peace and War," in Robert G. Weinland, Michael K. MccGwire, and James M. McConnell, *Admiral Gorshkov on "Navies in War and Peace*," Arlington, VA: Center for Naval Analysis, Institute of Naval Studies, 1974, pp. iii, 39-40.

100. *Ibid.*, pp. 81-82.

101. Michael K. MccGwire, "Advocacy of Seapower in an Internal Debate," in Robert G. Weinland, Michael K. MccGwire, and James M. McConnell, *Admiral Gorshkov on "Navies in War and Peace*," Arlington, VA: Center for Naval Analysis, Institute of Naval Studies, 1974, p. 21.

102. Jacob W. Kipp, "Gorbachev's Gambit: Soviet Military Doctrine and Conventional Arms Control in an Era of Reform," in Sam C. Sarkesian and John Allen Williams, eds., *The U.S. Army in a New Security Era*, Boulder, CO: Lynne Rienner Publishers, 1990, p. 107.

103. MccGwire, "Advocacy of Seapower in an Internal Debate," p. 21.

104. The exception to this rule is the U.S. Navy during World War II, which was able to mobilize a massive industrial infrastructure to multiply its naval forces to fight a two-ocean war and achieve command of the sea in the Atlantic and Pacific Oceans by creating forces to fit the naval strategies required for victory.

105. Monakov, *Glavkom*, pp. 556-557.

106. The first generation heavy aviation-carrying cruiser was Project 1143, *Krechet*, built at the Black Sea Shipyards in Nikolaevo and entered into service in December 1975 as the *Kiev* with a total three ships of the class created. They were armed with fixed-wing VSTOL aircraft and helicopters, anti-ship cruise missile, SAMs, and ASW weapons. The primary mission of this class of warship was anti-carrier operations. The follow-on heavy aviation-carrying cruiser was Project 1143.5, which entered service in 1991. This ship carried an air wing of modern fighter aircraft, SAM, and

ASW weapons. During its construction, it went through no fewer than five name changes. At the start of construction, the ship carried the name *Riga*, which was changed to the *Soviet Union*, then *Leonid Brezhnev*, then the *Tibilisi*, and finally *Soviet Union Admiral Kuznetsov*. The name changes reflected the dynamic political environment of the late Soviet Union and with the last name the final curtain on the Gorshkov era. This period saw the rapid evolution of the Soviet SSBN and SSGN forces: Project 667B "*Murena*," NATO-*Delta I*; Project 667BD "*Murena-M*," NATO-*Delta II*; Project 667BDR, "*Kalmar*," NATO-*Delta III*; and Project 667BDRM "*Delfin*," NATO-*Delta IV*. *Delta I* carried 12 R-29, SS-8-N Sawfly SLBMs; and *Delta II* carried 16 R-29D, SS-8-N Sawfly SLBMs; *Delta III* carried 16 R-29R, SS-N-18 Stingray SLBMs with multiple warheads; as did *Delta IV*, which carried 16 R-29RM, SS-N-23 Skiff SLBMs. All of these missiles made intercontinental ranges and could operate in the Arctic Ocean and the Sea of Okhotsk. The first *Delta I* joined the Northern Fleet in 1972. Total construction of each class was: *Delta I*, 18 boats; *Delta II*, 4 boats; *Delta III*, 14 boats; and, *Delta IV*, 7 boats. All *Delta*-classes were armed with torpedo tubes. A second class of SSBNs Project 941, *Akula*, NATO-*Typhoon* also began to be entered into service during this decade. Designated as TK class (heavy cruisers), the *Typhoons* displaced over 20,000 tons and were armed with 20 R-39s, NATO-SS-N-20 Sturgeon SLBMs with 10 MIRVed warheads each. In total, six of this class of SSBN were built, with the first joining the Northern Fleet in early 1982. They also were equipped with torpedo tubes. All of the *Delta*-class and *Typhoon*-class SSBNs were built at the shipyards in Severodvinsk. The Heavy Nuclear-Powered Missile Cruisers, Project 1144 "*Orlan*," *Kirov*-class, were built at the Baltiysk Yards in Leningrad with the *Kirov* joining the fleet in 1982. Built as a follow-on to the Heavy ASW cruisers of a generation earlier, this class combined both cruise missiles, ASW capabilities, and SAMs. It was, in fact, a new class of capital ship, unique to the Soviet Navy with a displacement of 24,300 tons.

107. Valerii Aleksin, Edvard Shevelev, and Vladimir Mariukha, "Flot Rossii: proshloe bez budushchego?" ("Past without Future?"), *Kasnaia zvezda*, March 18, 1995.

108. Vladimir Sokolov, "Sud'ba Rossiiskogo flota" ("The Fate of the Russian Navy"), *National Guard Military Review*, July 4, 1997.

109. "Eshelony vlasti i STRELOCHNIKI: o vlianii slukhov na rossiiskuiu politiku" ("The Echelons of Power and the Signalmen: On the Influence of Rumors on Russian Politics"), *Novaia gazeta*, August 10, 1998.

110. Valerii Aleksin, "Morskoe kreshchenie verkhovnogo glavnokomanduiushchego" ("The Naval Baptism of the Supreme Commander-in-Chief"), *Nezavisimaia gazeta*, August 25, 1998.

111. "El'tsin nanes raketnyi udar po kamchatke" ("Yeltsin Delivered a Missile Strike on Kamchatka"), *Trud*, August 22, 1998.

112. "Spokoistviia banditam na severnom Kavkaze NE BUDET: Itogi komandno-shtabnogo ucheniia komentiruet pervyi zamestitel' komanduiushchego voiskami SKVO General-Leutenant G. Troshev" ("The Bandits in the North Caucasus Will Have No Peace: The First Deputy Commander of the North Caucasus Military District, Lieutenant-General G. Troshev, Comments on the Results of the Command-and-Staff Training Exercise"), *Voennyi vestnik Yuga Rossii*, August 3, 1998.

113. Ibid.

114. Oleg Vladykin, "Ia i sem' minuvshikh dnei: Repetitsiia voiny na Kavkaze Obshchaia gazeta" ("I and the Past Seven Days: A Rehearsal for the War in the Caucasus"), August 6, 1998.

115. Kapitan O. Finaev, "U moriakov-kaspisiitsev: A volny i stonut, i plachut" ("Visiting Sailors of the Caspian Fleet: And the Waves Are Moaning and Crying"), *Voennyi vestnik Yuga Rossii*, August 24, 1998.

116. Ibid.

117. "Russiia tronulas' v Evropu: Kto znal i kto ne znal o marshe rossiiskikh desantnikov v Kosovo?" ("Russia Rolled into Europe: Who Knew and Who Did Not Know About the March of the Russian Paratroopers Toward Kosovo?"), *Novaia Gazeta*, June 14, 1999.

118. Vladimir Grigor'ev, "Koridory vlasti: Uprezhdaiushchii iadernyi udar" ("The Corridors of Power: A Preventive Nuclear Strike"), *Profil*, July 12, 1999.

119. Kipp, "Putin and Russia's War in Chechnya."

120. "Podpisannyi Vladimirom Putinyim ukaz 'O morskoi deiatel'nosti Rossii' napravlen na ukreplenie voennoi i ekonomicheskoi moshchi strany" ("The Executive Order 'On Russia's Maritime Activities'" Signed by Putin Is Aimed at Strengthening the Country's Military and Economic Might"), *Agentstvo voennykh novostei*, March 7, 2000.

121. "Morskaia politika Rossii" ("Russia's Maritime Policy"), *Nezavisimoe voennoe obozrenie*, March 31, 2000.

122. Ibid.

123. Ibid.

124. "Korabli postoiat" ("Ships Will Stand Idle for a While"), *Poliarnaia pravda*, July 19, 2000. The title of this article is "Ships Stood up," which refers to the fact that the Navy's budget did not cover repairs of a number of ships on the waiting list at Sevmashe Yards.

125. I. M. Kapitanets, *Flot v voynakh shestogo pokolenii (Navy in Sixth Generation Wars)*, Moscow, Russia: Veche, 2003.

126. Dmitri Litovkin, "Deli vybiraet russkii 'Shtorm'" ("Deli Chooses Russian 'Shtorm'"), *Izvestiia*, March 1, 2016.

127. Vivek Raghuvanshi, "Russia Offers India Nuclear Aircraft Carrier," *Defense News*, July 11, 2016, available from <https://www.defensenews.com/naval/2016/07/11/russia-offers-india-nuclear-aircraft-carrier/>.

128. "Edinstvennyi avianosets Rossii" ("Russia's Only Aircraft Carrier"), *RBK Daily*, November 7, 2016.

129. Andrei Malov and Roman Fomishenko, "Vladimir Putin: 'Rossia nuzhdaetsia v moshchom voenno-morskom flote'" (Vladimir Putin: 'Russia Needs a Powerful Navy'), *Na strazhe Zapoliar'ia*, April 8, 2000.

130. Ibid.

131. Ibid.

132. S. Gorbachev, "Sobytiie N 1. Vladimir Putin v Sevastopole" ("Event Number 1: Vladimir Putin Is in Sevastopol"), *Flag rodiny*, April 19, 2000.

133. V. Putin, "Rossiia ne mozhet sushchestvovat' bez VMF" ("Russia Cannot Exist Without Navy"), *Sankt Peterburgskie vedomosti*, August 1, 2000.

134. "V Planakh razvitiia boevogo potentsiala VMF Prioritet otdan morskim strategicheskim iadernym silam" ("In the Plans for the Development of the Navy's Military Potential, the Priority Is Given to the Naval Strategic Nuclear Forces"), *Agentstvo voennykh novostei*, July 24, 2000.

135. Ibid.

136. "Glavkom VMF zashchitil doktorskuiu dissertatsiiu" ("The Commander-in-Chief of the Navy Has Defended a Doctoral Dissertation"), *Na strazhe Zapoliar'ia*, August 2, 2000.

137. M. Iu. Kurushin, *Podvodnaia lodka "Kursk:" Rozhdenie, zhizn', versii gibeli, podrobnosti* (Submarine "Kursk:" Its Birth, Life, Versions of Its Peril, Details), Moscow, Russia: Olimp Izdatel'stvo AST, 2000, pp. 5-6.

138. Ibid., p. 6.

139. Ibid.

140. Ibid.

141. "Na atomnoi podvodnoi lodke *Kursk*, lezhashchei na dne Barantseva moria, obharuzheny ser'eznye povrezhdeniia" ("Serious Damage Has Been Discovered on Atomic Submarine *Kursk* Which Is Lying on the Bottom of the Barents Sea"), *Agentstvo voennykh novostei*, August 14, 2000.

142. Ibid., p. 7.

143. Viktor Baranets, "Khronika tragedii i vran'ia" ("The Chronicle of the Tragedy and Lies"), *Komsomol'skaia pravda*, August 15, 2000.

144. Kurushin, *Podvodnaia lodka "Kursk"* (Submarine "Kursk:"), pp. 142-146.

145. *Ibid.*, pp. 40-46.

146. Nikolai Gul'ko, "Pervaia polosa: Podvodka ukhodit vse glubzhe i glubzhe" ("The First Search Area: The Submarine Is Sinking Deeper and Deeper"), *Kommersant*, August 18, 2000.

147. A. G. Maklakov, S. V. Chernianin, V. K. Shamrei, and A. Iu. Kondrat'ev, "O osovennosti okazaniia mediko-psikhologicheskoi pomoshchi rodstevennikam pogibshikh moriakov atomnoi podvodnoi lodki *Kursk*" ("Specifics of Medical and Psychological Assistance Rendered to the Families of the Seamen Lost on the Sunken Nuclear Submarine *Kursk*"), *Psikologicheskii zhurnal*, March 2001, pp. 5-13.

148. Nataliia Postova, "Prezident Putin i tragediia podvodki *Kursk*" ("President Putin and the Tragedy of Submarine *Kursk*"), *Slon.Ru*, June 6, 2012.

149. David Zhvania, "Kak Putin vret pro tragediiu Kurska" ("How Putin Lies about the Tragedy of *Kursk*"), August 23, 2000.

150. "Rekviem: Serdtse *Kurska* ostanovilos'" ("Requiem: *Kursk's* Heart Is No Longer Beating"), *Parlamentskaia gazeta*, August 23, 2000.

151. Kurushin, *Podvodnaia lodka "Kursk,"* pp. 52-96.

152. "Admiral Popov prosit proshcheniia u rodnykh ekipazha APL K-141 *Kursk*" ("Admiral Popov Asks Forgiveness from the Relatives of the Crew of ASN K-141 *Kursk*"), August 22, 2000, available from <https://www.youtube.com/watch?v=EInh5OhPIYM>, accessed November 10, 2016.

153. "Kursk vzorvali podlodki SSha no Putin I Klinton gov-orilis'I skryli pravdu" ("Collision with US Submarine Destroyed *Kursk* but Putin and Clinton Agreed to Conceal the Truth"), *NewsRu.com*, *La Stampa*, December 21, 2004, available from https://www.newsru.com/world/21dec2004/kursk_shok.html, accessed December 4, 2018.

154. "NATO i Rossiia 'udvoiat sotrudnichestvo v bor'be s terrorizmom'—Robertson" ("NATO and Russia Are Expanding Cooperation against Terrorism"), *Agentstvo voennykh novosti*, September 14, 2001.

155. Aleksandr Sabov, "O Kom govoriat admiraly na beregu" ("About Whom Admirals Talk on Shore"), *Rossiiskaia gazeta*, December 17, 2001.

156. "Naznacheniiia novye komanduiushchie" ("Appointments. New Commanding Officers"), *Strazh Balitiki*, December 6, 2001.

157. Igor Cherniak, "Kadry: Vchera Putin ustroil kadrovuiu revoliutsiiu" ("Yesterday Putin Carried out Personnel Revolution"), *Komsomol'skaia pravda*, March 28, 2001.

158. Evgenii Anisimov, "Kommentarii nedeli: Pochemu Putin pomenial silovykh ministrov?" ("Weekly Commentary: Why Did Putin Replace Power Ministers?"), *Komsomol'skaia pravda*, March 30, 2001.

159. "'Skoriony' zakupim, vinovnykh nakazhen" ("We Shall Purchase Scorpions and We Shall Punish the Guilty"), *Sankt Peterburgskie vedomosti*, August 10, 2005.

160. Dmitri Litovkin, "Na voprosy 'Krasnoi zvezdy' otvechaet komanduiushchii KVF kontr-admiral Vladimir Masorin" ("The Commander of the Caspian Naval Flotilla, Rear Admiral Vladimir Masorin, Answers Questions of *Krasnaia Zvezda*"), *Krasnaia zvezda*, May 5, 1997.

161. Vasilii Dandykin, "Armiia i reforma: Voiuiushchaia flotilia" ("The Army and Reform: Fighting Flotilla"), *Voin Rossii*, July 1, 2000; "Iz Chechni v raion postoiannoi dislokatsii vernul'sia otdel'nyi batal'on morskoi pokhoty Kaspiiskoi flotilii" ("A Separate Battalion of Naval Infantry of the Caspian Flotilla Has Returned from Chechnya to the Area of Its Permanent Deployment"), *Agentstvo vennykh novostei*, September 27, 2000.

162. Litovkin, "Na voprosy 'Krasnoi zvezdy' otvechaet komanduiushchii KVF kontr-admiral Vladimir Masorin."

163. Vladislav Dubina, "Admiral Vladimir Masorin: Professionalizm kuetsia v more" ("Admiral Vladimir Masorin: Professionalism Is Forged at Sea"), *Boenaia vakhta*, December 7, 2005.

164. Ibid.

165. "Vstrecha v Glavkomate VMF" ("Meeting at Naval Headquarters"), *Flag Rodiny*, March 16, 2007.

166. Ibid.

167. Iana Potapova "Glavnokomanduiushchii VMF RF admiral flota Vladimir Masorin: Rossii nuzhen flot" ("Commander-in-Chief of the Navy of the RF [Russian Federation], Vladimir Masorin: Russia Needs a Navy"), *Na strazhe Zapooliar'ia*, April 28, 2007.

168. Ibid.

169. Ibid.

170. "S 2009 goda na vmf budut sluzhit' odni kontraktniki, zaiavil Glavkom" ("Beginning 2009, Only Contract Personnel Will Serve in the Navy, Says Commander-in-Chief"), *Newsru.com*, June 23, 2007, available from <http://www.newsru.com/russia/23jun2007/masorin.html>, accessed October 5, 2016.

171. Timofei Borisov and Aleksandr Emel'ianenkov, "Bulava s plech" ("The Mace off the Shoulder"), *Rossiiskaia gazeta*, June 30, 2007.

172. Vladimir Masorin, "Voiska i sily na severo-vostoke - garant stabil'nosti i bezopasnosti gosudarstva" ("Troops and Forces in the North-East Are the Guarantee of the Stability and Security of the State"), *Tikhookeanskaia vakhta*, July 12, 2007.

173. Andrei Gavrilenko, "Vremia 'Sinevy'" ("Time for 'Sineva'"), *Krasnaia zvezda*, July 25, 2007.

174. Aleksandr Emel'ianenkov, "Bulava v mechtakh, Sineva - na starte" ("Bulava in Dreams, Sineva Is Ready to Launch"), *Rossiiskaia gazeta*, July 28, 2007.

175. "Do 2015 g. RF rasshirit stroitel'stvo podvodnykh lodok i korablei novogo pokoleniia - Glavkom VMF Rossii Vladimir Masorin" ("By 2015, the Russian Federation Will Expand the Construction of Submarines and Surface Warships of a New Generation—Commander-in-Chief of the Russian Navy, Vladimir Masorin"), *Defense Express*, July 25, 2007.

176. Ibid.

177. Pavel Felgenhauer, "Atomnaia ruletka Admirala Masorina" ("The Nuclear Roulette of Admiral Masorin"), *Novaia gazeta*, August 9, 2007.

178. Vladimir Lobov, "Rossiiskomu admiralu - Amerikanskii orden" ("Russian Admiral Receives an American Decoration"), *Krasnaia zvezda*, September 1, 2007.

179. "U voennykh moriakov smenilos' rukovodstvo" ("The Navy Has Changed Leadership"), *Moskovskii komsomolets*, September 14, 2007.

180. Aleksei Nikol'skii, "Serdiukov uskoril rotatsii" ("Serdiukov Has Speeded Up the Rotations"), *Vedomosti*, September 18, 2007.

181. Konstantin Lantratov and Aleksandra Gritskova, "Voenno-morskoi flot leg na novyi kurs" ("The Navy Has Set a New Course"), *Kommersant*, September 14, 2007.

182. Ibid.

183. Vladimir Gundarov, "Novorossiisk ne prinimaet" ("Novossiisk Does Not Accept"), *Nezavisimoe voennoe obozrenie*, September 14, 2007.

184. "Vysotskii, Vladimir Sergeevich, Byvshii glavokomanduiushchii Voenno-morskogo flota Rossii" ("Former Commander-in-Chief of the Navy"), Lenta.Ru, available from <https://lenta.ru/lib/14184389/>, accessed December 19, 2016.

185. Iurii Gavrilov, "Na kapitanskom mostike—Vysotskii" ("Vysotskii Is on the Bridge"), *Rossiiskaia gazeta*, September 27, 2005.

186. Elena Milashina, "Operatsiia 'Preemnik' sorvalas" ("Operation 'Successor' Has Failed"), *Novaia gazeta*, September 6, 2007; Mikhail Leopol'dovich Abramov, available from https://ru.wikipedia.org/w/index.php?title=Абрамов,_Михаил_Леопольдович&stableid=89625789, accessed December 15, 2016.

187. Dmitri Litovkin, "Glavnym na flote stal Vladimir Vysotskii" ("Operation 'Successor' Has Failed"), *Izvestiia*, September 14, 2007.

188. Maksim Agarkov, "Nestrategicheskii glavkom" ("A Non-Strategic Commander-in-Chief"), *Ekspert*, September 17, 2007.

189. Tat'iana Rastogueva, "Buduschchee VMF—avianosnye sistemy" ("The Future of the Navy Are Naval Aviation Systems"), *Sovorovskii natisk*, July 29, 2008.

190. Ibid.

191. Nikolai Poroskov, "Peremeny po flotski" ("Changes Navy Style"), *Vremia novstei*, August 5, 2008.

192. Dmitri Litovkin, "Kakim stanet avianosets budushchego?" ("What Will Be the Aircraft Carrier of the Future?"), *Izvestiia*, October 14, 2008.

193. Nikolai Voskresenskii, "Slovo komanduiushchego: Glavnyi prazdnik moriakov" ("Speech of the Commander-in-Chief on Navy Day"), *Flag rodiny*, July 26, 2008.

194. V. Anisin and V. Tashlykov, "Voенно-politicheskaia obstanovka v stranakh Chernomorsko-Kaspiiskoi zony" ("The Military-Political Situation in the Countries of the Black Sea-Caspian Region"), *Zarubezhnoe voенnoe obozrenie*, No. 6, June 2008, pp. 3-10.

195. Ibid.

196. Ibid.

197. Sergei Gorbachev, "Chernomorskaia stolitsa" ("The Capital of the Black Sea"), *Voin Rossii*, July 7, 2008.

198. Andrei Gavrilenko, "Glavkom VMF v Novorossiiske" ("Commander-in-Chief of the Navy Is in Novorossiisk"), *Krasnaia zvezda*, July 4, 2008.

199. Ibid.

200. Ibid.

201. Aleksandr Tikhonov, "Vtoroi etap ucheniia" ("Second Stage of the Exercise"), *Krasnaia Zvezda*, July 22, 2008.

202. Ibid.

203. Iurii Simonian, "Gruzii meniaet mirotvorcheskii format" ("Georgia Changes the Peacekeeping Format"), *Nezavisimaia gazeta*, July 22, 2008.

204. Iurii Vachnadze, "Gruzii ne verit v uregulirovanie konfliktkov" ("Georgia Does Not Believe in the Process of Regulating Conflicts"), *Neuskoe vremia*, July 23, 2008.

205. Marina Perevozkina, "Tskhinvali okapyvaetsia" ("Tskhinvali Has Dug in"), *Nezavisimaia gazeta*, July 28, 2008.

206. Aleksandr Iashvili and Iurii Snegirev, "Zhitel' Tskhinvali - *Izvestiiam*: Zavtra - voia i my budem zashchishchat'sia!" ("A Resident of Tskhinvali - Speaking to *Izvestiia*: 'Tomorrow There will be War and We Will Defend Ourselves!')", *Izvestiia*, August 4, 2008.

207. Pavel Felgenhauer, "V Gruzii est' komu voevat' i chem voevat'" ("Georgia Has Those Who Will Fight and the Means to Fight"), *Nezavisimoe voennoe obozrenie*, July 25, 2008.

208. Aleksandr Khramchikhin, "Poslednii shans Saakashvili" ("Saakashvili's Last Chance"), *Nezavisimoe voennoe obozrenie*, July 23, 2008.

209. Felgenhauer, "V Gruzii est' komu voevat' i chem voevat'."

210. Ibid.

211. Ibid.

212. Ibid.

213. Aleksandr Khramchikhin, "Armiia Tbilisi ne panatseia ("Tbilisi's Army Is No Panacea"), *Nezavisimoe voennoe obozrenie*, August 1, 2008.

214. Ibid.

215. Georgii Dvali and Aleksandr Reutov, "Abkhaziia otkryla vtoroi front" ("Abkhaziia Opens a Second Front"), *Kommersant*, August 11, 2008.

216. Ibid.

217. Ibid.

218. "Gruzinskii kater byl potoplen rossiiskimi moriakami, ("Georgian Cutter Was Sunk by Russian Sailors"), *Vechernaia Moskva*, August 11, 2006.

219. Sergei Vasil'ev "ChF: Mirotvorcheskaia missiia" ("BF [Black Sea Fleet]: Peacekeeping Mission"), *Krasnaia zvezda*, August 12, 2008.

220. Dvali and Reutov, "Abkhaziia otkryla vtoroi front" ("Abkhaziia Opens a Second Front"), *Kommersant*, August 11, 2008.

221. "Voennye moriaki Rossii vpolnili zadachu u beregov Abkhazii" ("Russian Sailors Have Accomplished Their Tasks Near the Shores of Abkhaziia"), *Vechernaia Moskva*, August 12, 2012.

222. Ronald D. Asmus, *A Little War that Shook the World: Georgia, Russia, and the Future of the West*, Basingstoke, UK: Palgrave Macmillan, January 19, 2010.

223. Jacob W. Kipp, "The Russia-Georgia Conflict: Analyzed by the Center of Analysis of Strategies and Technologies in Moscow," *Eurasia Daily Monitor*, Part One, Vol. 7, Iss. 15, January 22, 2010; Jacob W. Kipp, "The Russia-Georgia Conflict: Analyzed by the Center of Analysis of Strategies and Technologies in Moscow," *Eurasia Daily Monitor*, Part Two, Vol. 7, Iss. 16, January 25, 2010.

224. Jacob W. Kipp, "The Shifting Strategic Priorities of the Russian Navy," *Eurasia Daily Monitor*, Vol. 7, Iss. 195, October 23, 2008.

225. "Gruziia trebuet zapretit' prodazhu oruzhiia Rossii" ("Georgia Demands that Arms Sales to Russia Cease"), *Sovetskaia Rossiia*, September 17, 2009.

226. Vladimir Shcherbakov, "Mistral' v gorle u otecestvennogo sudproma" ("Mistral in the Throat of Domestic Shipbuilders"), *Nezavisimoe voennoe obozrenie*, December 25, 2009.

227. Vladimir Shcherbakov, "Den' VMF—grustnyi prazdnik" ("Navy Day—A Sad Holiday"), *Nezavisimaia gazeta*, July 22, 2010.

228. Andrei Gavrilenko, "Mistral': Dostignuto soglasenie" ("Mistral: An Agreement Has Been Reached"), *Krasnaia zvezda*, December 28, 2010; "Rossiiskaia korporatsiia primat uchastie v proizvodstve Mistralei" ("Russian Company Will Take Part in the Construction of Mistrals"), *Nezavisimaia gazeta*, December 29, 2010.

229. Thomas R. Fedyszyn, "Renaissance of the Russian Navy?" *Proceedings*, Vol. 138, No. 3, March 2012, available from <http://www.usni.org/magazines/proceedings/2012-03/renaissance-russian-navy>, accessed May 5, 2012.

230. "Pozhar unichtozhil shtab na aviabaze VMF v Moskovskoi oblasti" ("Fire Destroyed Headquarters at Navy Airbase in Moscow Oblast"), *RIA Novosti*, August 3, 2010; "Za pozhar na aviabaze v podmoskov'e Medcevev uvolil srazu heskol'ko vysshikh chinov vmf" ("For Fire at Airbase outside Moscow Medvedev Fired Several Senior Naval Officers"), *Kasnogorsk News*, August 4, 2010.

CHAPTER 14. RUSSIA'S STRATEGIC UNDERBELLY: MILITARY STRATEGY, CAPABILITIES, AND OPERATIONS IN THE ARCTIC

Katarzyna Zysk

INTRODUCTION

The Arctic is arguably one of the most stable Russian border regions, as Russian officials have systematically underlined themselves.¹ Indeed, compared with the security challenges Russia faces on its southern border, the rising power of China in the east, and its own military engagement in Eastern Ukraine and in the Middle East, the Arctic appears as a uniquely peaceful region. It has few remaining unresolved legal issues and a broad, stabilizing network of governance regimes at the subregional, regional, and global levels.² Russian diplomats, including Foreign Minister Sergey Lavrov, highlight dialogue and cooperation in the Arctic and argue there are no problems in the region that would require resolving by military means.³ They promote the notion of Russia as a reasonable and reliable Arctic stakeholder and give credence to such rhetoric by having the country engage in bilateral and multilateral cooperation across a range of fields.

Simultaneously, however, Russia has been pursuing a large-scale military modernization in the Arctic. When Russia presented its foundations for the state policy in the Arctic in 2008, military ambitions for the Arctic seemed limited. They focused primarily on maintaining and modernizing the nuclear forces, and enhancing protection of the extensive sea and land territories, as well as security and safety of

Arctic operations.⁴ For instance, in 2009 Foreign Minister Lavrov insisted that Russia had “no intentions to enhance its military presence or establish military forces in the Arctic.”⁵

However, the plans for strengthening Russia’s defense in the region have expanded significantly since Vladimir Putin’s return to power as President in May 2012. Minister of Defense Sergei Shoigu announced in October 2014 that Russian forces would now be stationed along the entire Russian Arctic coast, from Murmansk to Chukotka.⁶

One of the key goals is to create a comprehensive coastal defense infrastructure to support military operations in the region. In total, Russia aims to develop 13 military bases and 1 training field on its Arctic islands, including Kotelnii Island in the New Siberian Islands, Srednii Island at Severnaya Zemlya, Aleksandra Land in Franz Josef Land, Rogachevo on the Novaya Zemlya, Wrangel Island, and Cape Schmidt in the Chukotka Peninsula.⁷ In addition, Russia plans to develop several other bases on the mainland along the Arctic coast, such as Naryan-Mar, Anadyr-Ugol’nyi, Alykel’ Vorkuta, and Tiksi.⁸

The Russian authorities have further underlined the importance of the Arctic in numerous policy documents, including the *2015 Maritime Doctrine*, in which the Arctic and the Atlantic have been given priority.⁹ At a meeting of top-ranking officials of the Defense Ministry in December 2015, Minister Sergei Shoigu promised that reinforcement of the military units in the Arctic would be among the priority tasks in 2016,¹⁰ and a complete Arctic force group would be fully established by 2018.¹¹

The wave of international interest in the Arctic since the early 2000s, initially driven by the discussion on

climate change and subsequently the region's potential to become a new energy frontier, has contributed to a widespread perception among the Russian authorities that the country has to strengthen its positions in the Arctic or face being driven out by other stakeholders.¹² Because of the opening of the Arctic to outside interest, influence, and presence, Russian authorities have increasingly perceived the Arctic as a strategic underbelly: a region playing a central role in Russia's military strategy, with potentially strategically important sea lines of communication (SLOC) and vast natural reserves considered vital to Russia's economic future, yet insufficiently protected and increasingly vulnerable. Such reasoning, frequently expressed since 2007 by the military and political leadership, was reflected in Putin's remarks at the meeting of the Security Council in April 2014:

There is a growing interest in the Arctic on the part of the international community. Ever more frequently, we see the collision of interests of Arctic nations, and not only them. . . . We should also bear in mind the dynamic and ever-changing political and socioeconomic situation in the world, which is fraught with new risks and challenges to Russia's national interests, including those in the Arctic. . . . We need to take additional measures so as not to fall behind our partners, to maintain Russia's influence in the region and maybe, in some areas, to be ahead of our partners.¹³

The Russian military build-up in the region is based on a broad spectrum of threats that encompass both state and nonstate actors in the Arctic and outside of the region. Indeed, despite immediate and pressing security needs in other regions amidst an increasingly constrained budget situation, Russia has maintained a high level of military activity in the Arctic and

continued to modernize the armed forces and security structures in the region across all defense branches. The following analysis explores Russia's: (1) strategic and operational objectives in the Arctic; (2) current and planned capabilities; and, (3) exercises and operational patterns in the activity of the armed forces in the Arctic, together with Russia's interests and intent on which the military development is based.

STRATEGIC AND OPERATIONAL OBJECTIVES

Nuclear Deterrence and Naval Strategy

Russia's most important strategic and operational objectives in the Arctic are related to the region's central role in global nuclear deterrence. The ballistic missile submarines (SSBN) of the Northern Fleet—still the strongest part of the Russian Navy—remain the foundation of the region's military importance to Russia. That explains the top priority given to the SSBN modernization and protection efforts, which drive a fair share of military investments and activities. In this way, the Arctic contributes to maintaining Russia's status as a great power. Despite Moscow's stronger focus on Asia and the Russian Pacific Fleet, the importance of the European part of the Arctic and the Western strategic direction is unlikely to diminish significantly in the near future.

The foundation for Russian military strategy in the region remains the traditional mission to form a "bastion" in case of conflict (i.e., maritime areas around the naval bases closed to penetration by enemy naval forces). Here, Russia would deploy strategic submarines and maintain control, while in the areas further

south, where Russia would be unlikely to hold control, it would seek to deny control to potential adversaries.

The Arctic also supports Russian air-based nuclear deterrence. In 2007, Russia resumed patrol flights involving long-range bombers along the main Cold War routes, toward the United States and Canada. Forward bases located along the Arctic coast in Olenya (Olenegorsk), Monchegorsk, Vorkuta, Tiksi, and Anadyr¹⁴ can be used for deployment and basing of strategic bombers that normally are stationed at the main bases in southwest and southeast Russia, primarily in Engels and Ukrainka.

The Arctic also provides Russia with strategic gateways to both the Atlantic and Pacific Oceans.¹⁵ Preserving this corridor is one of the main goals of Russian policies. Should conflict arise, it will give Russia the ability to attack enemies' SLOCs. Access denial and control strategies are particularly important, given that the Russian naval potential remains divided among four main theaters of naval operations (Atlantic Ocean/Barents Sea, Pacific Ocean, Black Sea, and the Baltic). Rapid redeployment of warships from one naval theater to another has been rehearsed often in the past decade.¹⁶ The opening of the Northern Sea Route (NSR) along the Siberian coast may further reinforce the naval strategy by opening a new SLOC for transfer of warships between the Atlantic and Pacific Oceans. Such maneuverability is considered particularly important, as availability of large surface warships is still limited. Despite modernization efforts, Russian surface shipbuilding programs are slow and hampered by delays. They have been undermined further by the annexation of Crimea and Western sanctions, which have severed Russian access to vital supplies such as Ukrainian gas turbine engines and German diesel

power units for the *Admiral Grigorovich*-class frigates and *Gremyashchiy*-class corvettes.¹⁷

One of the main missions of Russian conventional naval forces is to protect the strategic submarines, their bases on the Kola Peninsula, and their operational area. In case of a major conflict involving great powers, Russia's strategic assets in the Arctic, in particular the SSBNs, bases, and other military infrastructure—including shipyards, intelligence installations and the Plesetsk Cosmodrome (used for military satellite and intercontinental ballistic missile [ICBM] launches)—would likely become key targets.¹⁸ Russian authorities have also voiced concerns about new challenges and threats to the armed forces stemming from environmental changes in the region. The opening of previously inaccessible parts of the Arctic Ocean could be used to pose threats to Russia's second-strike capability through, for example, the deployment of ships equipped with the Aegis Combat System in Arctic waters that become ice-free during parts of the year as well as through potential airstrikes from the region.¹⁹

Economic Assets and Asymmetrical Threats

Another driving force behind Russia's military modernization in the Arctic is its ambition to transform the region into the country's foremost strategic base for natural resources by 2020, and the NSR into a major maritime corridor between Europe and Asia.²⁰ Russian authorities frequently highlight the economic significance of the Arctic, as Vladimir Putin did in April 2014 when he argued that the overall energy reserves in the Russian Arctic exceed 1.6 trillion tons, while the continental shelf holds almost a quarter of

all the hydrocarbon resources on the entire world's continental shelf.²¹ The country's leadership believes that developing the Arctic may contribute to a revival of the whole national economy.²² The economic activities will require support and protection from military and security forces. As put by by former Deputy Prime Minister Dmitry Rogozin, "if we come to the Arctic region economically and implement such global projects as the work on the Arctic shelf, the development of the Northern Sea Route, it is clear that the economy requires security."²³

At the same time, the major changes in the natural environment that increase the accessibility of large areas of the Arctic Ocean do so not only to Russia but also for other stakeholders. Russia therefore sees an increased need to enhance surveillance and defend the rich natural resources of the Arctic as well as the maritime passage along the NSR.²⁴

Moreover, the Russian political and military authorities as well as intelligence and policy experts have argued since the early 2000s that the expected growth in global demand for energy, concurrent with declining energy production worldwide, could lead to rivalries and competition with international corporations and state actors alike, in the Arctic as elsewhere. In the assessment of Presidents Putin, Dmitry Medvedev, and the General Staff, such competition may eventually lead to a conflict.²⁵ Although this view is not broadly shared in the other Arctic states, the assessment argues that Russia, with its enormous share of global natural resources, may in the future become an object of a large-scale expansion.²⁶ In the view of the General Staff, the rivalry will be one of the most important challenges of Euro-Atlantic security.²⁷ Chief of the General Staff General Valery Gerasimov

assessed that the likelihood of the threat may increase by 2030.²⁸

Russian authorities therefore see strengthened control and surveillance of the extensive Russian exclusive economic zone and continental shelf as a priority task for the armed forces and security structures in the Arctic. If Russian claims to the outer limits of its Arctic continental shelf beyond 200 nautical miles are satisfied, the juridical Russian shelf may expand by 1.2 million square kilometers.²⁹ The Russian Ministry of Natural Resources expects that the region may contain 4.9 billion tons of equivalent oil.³⁰ It is therefore key for Russia to get hold of continental shelf rights. In pursuing its Arctic claim, however, Russia has systematically emphasized that it would follow the letter of the international law.

To date, Russia has been delivering on the promise by submitting, in 2001, its application to the United Nations Commission on the Limits of the Continental Shelf (UNCLCS) and in August 2015, submitted additional scientific evidence.³¹ Currently, there is no basis to assume that Russia would not accept the UNCLCS recommendation, even if seen as unfavorable to Russia. According to the Russian submission, however, its claim overlaps “substantially” with claims made by Denmark, and probably with Canada’s claim as well, although it is yet to be submitted. In case of overlapping claims, the issue will be resolved in bilateral or multilateral negotiations, and the process is likely to take many years. It is important to note that Russia is keen to support UNCLCS out of self-interest. As a country with an extensive coastline, Russia is one of the main beneficiaries of the UNCLCS regime, both in terms of exclusive economic zone and continental shelf, and is therefore likely to avoid steps that would undermine it.³²

One unresolved legal issue in the Arctic that remains sensitive is the Norwegian Svalbard archipelago, where Russia, together with over 40 other nations, has the right to develop economic activity under the 1920 Treaty of Svalbard. Russia has maintained a visible presence on the islands, as well as in the Fishery Protection Zone around the archipelago established by Norway in 1977. Russia has maintained a significant activity on the islands and, with several other countries, is critical to the Norwegian exercise of authority. There have been incidents between the Norwegian Coast Guard and Russian trawlers in the past, and they cannot be excluded in the future, including scenarios with a possible unintended escalation. The issue is particularly sensitive given that Norway is also a member of the North Atlantic Treaty Organization (NATO), and the Svalbard archipelago is therefore covered by the Article V of *The North Atlantic Treaty*.

Importantly, Russian presence on the islands is also a means to ensure that NATO and the United States do not use the islands for military purposes, at least beyond what Russia believes is already the case.³³ Consequently, Russia has taken a number of steps in the past few years aimed at sustaining its presence in the archipelago. For instance, in April 2007, Russia created a Governmental Commission for Securing Russian Presence at the Svalbard Archipelago,³⁴ and in July 2008, the Russian Navy announced a resumption of an active presence in Arctic waters on a regular basis, underlining that this included waters around Svalbard.³⁵ Maintaining Russia's visible presence in and around the islands is likely to remain one of the priorities of policies pursued toward the region.

Russian threat assessment in the Arctic also encompasses a spectrum of asymmetrical security challenges

and threats related to the expected increasing human presence that may become a source of such problems as environmental disasters and accidents. This includes, for instance, oil spills, trafficking of illegal goods and people, illegal exploitation of natural resources, and possible terrorist attacks on energy and other vital industrial infrastructure. Russia also expects that the opening of previously inaccessible areas in the Arctic Ocean will be exploited by intensified foreign intelligence activity against Russian military and economic interests. This threat assessment has served as an additional argument to justify investments in the armed forces and other structures, in particular the coast guard and the border guard forces of the Russian Federal Security Service (FSB), requiring new and adapted capabilities. Enhancement of border security, surveillance, control, communication, weather forecasting, and search and rescue capability, as well as human assistance and disaster relief, are among the major tasks the Russian military and security agencies are preparing to support in the Arctic.

Nevertheless, fluctuations in global energy supply and demand, particularly those related to the development of shale oil and gas and reduced Asian demand, have clouded the vision of an imminent oil boom in the Arctic. Factors such as the fall of oil prices in the middle of 2014 and Western sanctions limiting Russia's access to international financial markets and offshore and other technology in the wake of the 2014 annexation of Crimea slowed or postponed petroleum project development on Russia's Arctic continental shelf.³⁶ According to the International Monetary Fund, the Russian economy decreased by 3.7 percent in 2015, and the recession continued in 2016. While a slight recovery is expected in the future, a fall in oil prices is the main

risk to the outlook.³⁷ Still, it is unlikely that Arctic offshore energy extraction will reach significant levels in the near future. The development of alternative energy sources and production in lower-cost regions will pose additional challenges.³⁸

Nor has the other Arctic flagship project of the Russian Government—the establishment of the NSR as a major maritime connection between Europe and Asia—progressed according to expectations. The Russian Government's initial expectations for growth of shipping along the NSR were rather optimistic. In 2011, the Ministry of Transport expected that as much as 64 million tons could be transported by 2020 and 85 million tons by 2030. At the time, Prime Minister Putin predicted that the shipping route would soon rival the Suez Canal.³⁹ A few years later, the assessment has grown more sober, and in December 2013, then-Deputy Minister of Transport Victor Olersky acknowledged that it was absolutely certain that the NSR would not become a second Suez Canal.⁴⁰ Indeed, an initial growth trend beginning in 2009, which saw the number of ship transits rise to 71 and cargo tonnage reach 1.3 million tons, has subsided. Since 2014, however, the trend has fallen, with only 18 passages and less than 100,000 cargo tons reported in the first three-quarters of 2015.⁴¹ This decline has occurred even though Russian icebreakers' assistance fees have been reduced by half, following the depreciation of the value of the ruble.⁴²

Just as Arctic energy developments are affected by global energy markets, Arctic maritime shipping is subject to global maritime trends, including lower demand in China that has reduced the volume of shipping worldwide.⁴³ Shipping activity to and from the Russian Arctic depends on the level of economic

activity in the region, with a decrease in Arctic energy field operations affecting shipping accordingly. Likewise, technological advances in ship construction, permitting faster and cheaper transportation, together with a more stable shipping season, in particular the opening of year-round shipping, could increase maritime traffic along the Siberian coast. However, a major increase in transit traffic is not likely under the current economic, political, and climatic conditions.

CURRENT AND PLANNED CAPABILITIES

In recent years, Russia's primary focus has been on the development of air and sea components in the Arctic, with a limited strengthening of land troops with mobile rapid-reaction forces. In December 2014, Russia created a Joint Strategic Command (JSC) North based on the Northern Fleet, with responsibility for the entire Russian Arctic. While it is an unusual situation for the Russian Navy staff to command all forces and military in the region, gathering forces previously split between several military districts (West, Center, and East) under one authority is an attempt to improve coordination and resource efficiency across thousands of kilometers.⁴⁴

The main task in the military modernization process has been to prolong the Russian Navy's nuclear deterrence capability for many years into the future as reflected in the State Armament Programs (GPV-2015 and GPV-2020).⁴⁵ This is the case despite an increasing emphasis on conventional deterrence—in the Arctic and elsewhere, likely reflecting the positive results of the large-scale modernization under way since 2008.⁴⁶

Consequently, construction of the fourth-generation SSBN of the *Borei*-class has been prioritized and turned out to be one of the most efficient shipbuilding

programs, with three *Borei*-class submarines having entered service, four in different stages of construction, and one undergoing sea trials. The shipbuilding program is one of few in Russia that is likely to be completed, according to the announced timeframe (eight by 2020).⁴⁷ Russia is also building new nuclear-powered attack submarines of the *Severodvinsk*-class, the first of which joined the Northern Fleet in 2013, and has modernized six older submarines of the *Delta IV*-class, in addition to the *Akula*-class and *Oscar*-class submarines, as well as new classes of corvettes and frigates, although the programs have been dogged by delays.⁴⁸

As a part of the general strengthening of Russian defense in the Arctic, and protection of the SSBNs in particular, Russia has devoted particular attention to building a robust system of control over the air domain. In December 2015, Russia established the 45th Air Force and Air Defense division in the Northern Fleet, and reinforced it with an air defense missile regiment.⁴⁹ Modernized S-300 air defense missile systems have been deployed on Novaya Zemlya, Franz Joseph Land, Severnaya Zemlya, and the New Siberian Islands;⁵⁰ newer S-400 systems has been located on the Kola Peninsula and in the settlement of Tiksi in Yakutia in 2015.⁵¹ Aircraft control posts and radio-technical, radar, and space surveillance units have been deployed along the NSR from the Kola Peninsula and Novaya Zemlya to Anadyr and Cape Schmidt in the east.⁵² Russia aims to strengthen the air force further with modernized MIG 31 supersonic interceptor aircrafts to be located by 2018 at the Rogachevo Air Base on Novaya Zemlya and the air base near Tiksi (eastern Arctic), which is currently being modernized.⁵³

Aerospace defense in the Arctic is a central mission for the Russian armed forces. Since the radar network

density is extremely low, Russia plans to build 10 new radar stations for air defense and early warning throughout the whole Arctic area; work is in progress on the radar station in Vorkuta.⁵⁴ Such capability is also likely to be used to gather information and follow developments in the adjacent areas beyond Russia's borders. The Zaslon (Barrier) airborne radars of the MIG 31 warplanes may provide additional support.

Meanwhile, Russia is developing a system of Arktika satellites in order to enhance surveillance of the natural environment and human activity; remote sensing (e.g., natural resources, ice thickness, and temperatures); search and rescue capability; and communication, navigation, and weather forecast. The launch of the first satellite, however, was delayed because of U.S. sanctions on technology export to Russia, according to Sergei Lemeshevskii, General Director of the Lavochkin system development company, which is responsible for Arktika.⁵⁵ Whether Russia follows the new schedule to launch four satellites in the period up to 2021 remains to be seen.⁵⁶

While Russia's primary attention remains focused on the European part of the Arctic and the Northern Fleet, the authorities have also directed resources to rebuild some of the military presence in the eastern part of the region that was severely neglected since the 1990s. Receiving particular attention are the New Siberian Islands, where Russia is developing a temporary logistical hub for the Air Force on Koteln Island. Some of the Russian bases are also being strengthened with Rubezh (SSC-3) mobile coastal missile defense systems and Pantsir-S1 short- to medium-range air defense systems to provide close-in defense. Russia is developing a modified version of those systems for use in the harsh Arctic environment.⁵⁷

The presence of ground forces in the Arctic is relatively modest given their limited role in a vast, sparsely inhabited territory with poor infrastructure. Nevertheless, the forces have been strengthened with mobile rapid-reaction units, according to the plan outlined in the 2008 Russian Arctic policy document.⁵⁸ The so-called Arctic brigades are reinforcing Russia's defense in the European Arctic close to the borders with Norway and Finland. The 200th Motorized Infantry Brigade, part of the Northern Fleet, is based in Pechenga in Murmansk Oblast,⁵⁹ while the 80th Independent Motorized Infantry Brigade is located in the village of Alakurtti, approximately 50 kilometers (30 miles) east of the Finnish border.⁶⁰ Another brigade was to be deployed in Yamalo-Nenets Autonomous Okrug in 2016, but the plan has not been realized thus far. In order to assure quality training and prepare military personnel for service in Arctic conditions, Russia has created a specialized training center.⁶¹ The forces are also being equipped with military hardware adapted to the harsh climatic conditions, such as track carriers with increased cross-country capacity (DT-10PM Vityaz) as well as Army quads (AM-1, small all-terrain vehicle) and snowmobiles (A-1).⁶²

Given the expansion of the military bases around the Arctic, the Russian Navy needs a stronger, ice-strengthened auxiliary fleet. Russia has four of the world's largest nuclear-powered icebreakers, but they are aging quickly, and all but one will be decommissioned by 2020. Russia is therefore building new-generation nuclear-powered icebreakers to maintain its potential in the Arctic, with the first, *Arktika*, launched in 2017.⁶³ Like many other assets Russia is developing in the region, the icebreakers are considered dual-purpose, supporting both civilian and military activity.

During the Northern Fleet's passage along the NSR to the New Siberian Islands, for example, the icebreakers escorted the Navy.

Moreover, Russia is also building icebreakers for the Navy for the first time in post-Soviet history. The new diesel-electric icebreaker, *Ilya Muromets*, was floated in 2016.⁶⁴ Likewise, in May 2016, the Russian Ministry of Defense ordered two new ice-class multi-role warships to be delivered by the end of 2020. Comparable to a corvette, the Project 23550 vessel is to combine the capabilities of a tugboat, a light icebreaker, and a patrol boat.⁶⁵ While it appears similar to the Norwegian Coast Guard's *Svalbard*-class, it will have far more firepower; Russia intends to arm it with Kalibr cruise missiles.⁶⁶ These long-range precision weapons enhance the reach and effectiveness of Russia's smaller warships, and their deployment is likely to increase.⁶⁷

EXERCISES AND OPERATIONAL PATTERN

The Arctic is a convenient exercise area and a traditional test bed for new weapons despite the deteriorating economic situation in Russia. The range of combat training in the Arctic has intensified and grown increasingly complex and focused on strategic mobility, rapid reaction, and interservice and interagency operations, in a broad spectrum of scenarios aimed at both symmetrical and asymmetrical adversaries, reflecting the Russian threat perception.

The key role of nuclear deterrence in Russia's military strategy has been corroborated in the Northern Fleet's exercise pattern. The SSBN activity includes exercising navigation under the Arctic ice, which plays a role in preserving a credible second-strike capability. Missile launches in circumpolar conditions have

been a priority task of the Russian Navy since they were resumed in September 2006, after 11 years of suspension.⁶⁸

As the exercise pattern has demonstrated, the armed forces in the Arctic are likely to be used in a context of a possible confrontation also in other regions, especially in a conflict escalating into a regional war involving great powers, for which scenario Russia has demonstrated use of the Northern Fleet's key assets. One such scenario was most likely rehearsed on the Kola Peninsula in 2012 right after, and probably in connection with, the Kavkaz-2012 strategic drills in Military District South. The exercise included deployment of the Northern Fleet's SSBNs to the sea with air, surface, and underwater cover in connection with a simulated conflict on Russia's southern border that was depicted as escalating into a larger military confrontation. The operation combined use of a brigade with landing operations by naval infantry for ground defense of the naval bases and infrastructure on the Kola Peninsula.⁶⁹ A similar scenario was rehearsed the following year, parallel to the strategic exercise Zapad in September 2013. This large-scale operation simulated a conflict in Russia's western regions, most likely a regional war with NATO, with a similar activation of the Northern Fleet.⁷⁰ To improve reaction time, Russia has also conducted several surprise inspections of the Northern Fleet, including exercising a response to a missile attack on Russia and a response with nuclear weapons. Some of the exercises focused on anti-submarine operations with small anti-submarine ships and naval aviation and capabilities to protect the Northern Fleet SSBNs, as during the surprise inspection in November 2013.⁷¹

Given the geographic scale of the Russian Arctic territories, strategic mobility and transfer of manpower and resources by air and sea are particularly important. Russia has devoted a considerable part of its military training to improving strategic mobility, including the mobility of capital warships between various theaters of naval operations. For instance, the Northern Fleet's assets have been used in connection with exercises in other military districts and in operations abroad (e.g., in the anti-piracy operation off the coast of Somalia⁷² in the Mediterranean⁷³ and reportedly in the Donbass conflict in Eastern Ukraine, where the evidence indicates that Russia deployed the 200th Independent Motorized Infantry Brigade from Pechenga).⁷⁴

Russia is also preparing for scenarios in which military operations would be conducted in various parts of the Arctic. Russia has trained paratroopers as a flexible way to deliver rapid-reaction forces where needed in this otherwise hardly accessible region. The first large landing operation in the region in post-Soviet history was carried out in March 2014, when a 350-strong battalion of the 98th Ivanovo Airborne Division landed on Kotelny Island, situated in the main line of the NSR.⁷⁵ Two more landing operations followed in April and September of 2014.⁷⁶ In March 2016, airborne troops practiced landing on drifting ice in the Arctic Ocean.⁷⁷ According to the Russian Ministry of Defense, they conducted missions related to control of the NSR, in addition to search and rescue. Skills acquired during such exercises would be useful, however, in combat operations beyond the circumpolar area. In some operations, like one in April 2016, Russia has used forces from other member states in the Collective Rapid Response Forces of the Collective Security Treaty Organization (CSTO), as well as the "flying squad" of Chechen special forces that have taken part in "attacks

on enemy command positions” and supported other operations in the region.⁷⁸

Climate changes in the Arctic expand the tactical options for navies that operate there. For instance, the Northern Fleet has been enlarging its traditional area of surface operations, and the opening of the NSR may further reinforce the strategy. Since 2012, the Northern Fleet has sailed along the NSR each year.⁷⁹ In October 2012, warships of the Northern Fleet sailed toward the New Siberian Islands, where naval infantry conducted the first landing operations at Kotelny Island, with more than 7,000 soldiers and some 20 vessels, both surface ships and submarines. The exercise scenario included liberating the coast and a naval base with an airfield from a conventional enemy.⁸⁰ In September 2015, a group of Russian Northern Fleet warships practiced amphibious Arctic landing on the same island.⁸¹ Also in 2015, Military Transport Aviation of the Aerospace Forces performed landing on the Arctic airfield of Aleksandra Land for the first time.⁸²

While a fair share of the scenarios focused on symmetrical adversaries and conflicts, Russia has also rehearsed responses to potential asymmetrical threats, including terrorist attacks, as it did in October 2015 near Rogachevo Airport.⁸³ The Navy has also engaged in improving its search and rescue capability, which is highly prioritized by Russia in the Arctic; in September 2012, the Navy used its *Petr Velikii* battle cruiser for that purpose along the NSR.⁸⁴ Nevertheless, in situations demanding crisis management, disaster relief, and human assistance, JSC North will be dependent on cooperation with a range of civilian actors. Several major exercises have therefore included forces from a wide range of civilian and military services and agencies. For instance, during the Arktika 2014 exercise in

August 2014 that rehearsed post-oil spill crisis management, participants included the Northern Fleet, the coast guard, and assets of the Ministry of Transport and Ministry of Emergency, as well as search and rescue capacities of the petroleum companies Gazprom and Lukoil.⁸⁵

Military exercises in the Arctic, as elsewhere, often serve several purposes. In addition to preparing forces for future combat, they contain a strategic communications component and may convey a political signal by demonstrating strength and exerting pressure, as well as provoke and test reactions and perceptions from potential adversaries. The military activity in the Arctic supports one additional goal of the Russian authorities: reestablishment of the country as a first-rate international power, with corresponding influence in world affairs. A strong-armed force is considered a central tool of Russian diplomacy and foreign policy, as has been repeatedly demonstrated in practice in recent years.⁸⁶ The Arctic, where Russia has relatively little competition, is well-suited for demonstrating Russian ambitions to international, as well as domestic, audiences. The region holds a symbolically important place in Russia's history and national identity, so displays of military strength there, accompanied by rhetoric that portrays Russia as the Arctic superpower, resonate well with the Russian public, especially in communities where feelings of nationalism and isolationism run deep.

CONCLUSIONS

Russian officials continue to argue that the ongoing military build-up in the Arctic is not a militarization but, rather, a moderate and necessary series of

measures aimed at securing Russia's defense capability in the region.⁸⁷ As in the past decade, Russia continues to construct its regional policies on two main pillars: (1) practical international cooperation in a range of fields, supported by peaceful, reassuring rhetoric portraying Russia as a responsible stakeholder; and, (2) competition with and deterrence of potential competitors, based on the country's armed forces.⁸⁸ These policy foundations may appear contradictory and have generated an ongoing discussion in the media, academic, and policy circles in recent years about the underlying intent behind Russian activities. The observers have often focused on one of the aspects of the Russian policies—either cooperative or confrontational approaches, thus drawing radically different conclusions about Russia's objectives and motivations. Often these either have been presented as a militarization with a malevolent and aggressive intention, or downplayed the military build-up as a necessary modernization from the decay of the 1990s and a play for the domestic Russian audiences. Nonetheless, Russia has been perfectly capable of living with the ambivalence; both elements of the Russian policies and narratives are valid, and neither excludes the other.

Since 2008, Russia has succeeded in modernizing large parts of its armed forces, including those in the Arctic, where overall military capability has improved. The military organization has become a subject to a more effective command and control, more mobile, more capable of conducting joint operations, and more responsive on short notice. Russia has strengthened the Northern Fleet, air force, and airspace defense, and has reinforced its land component as well as the ability of airborne troops to operate in the Arctic. The military units have received modernized and new equipment

and weaponry, including systems developed specially for Arctic conditions. Russia has also started re-establishing integrated defense infrastructure throughout the Arctic area. The establishment of the JSC North may further bolster the Russian ability to coordinate and use resources available in the region more efficiently.

The JSC North faces a broad and complex set of missions in the vast region, including defense against a potential attack launched from sea and air, with conventional and nuclear ballistic and cruise missiles; defense of wide-ranging economic interests on land and in the enormous exclusive economic zone and the continental shelf; defense against asymmetrical threats; and crisis management. One key challenge to observe in the future will be the forms of coordination and development of interaction between Russia's different forces, such as the naval infantry and the Arctic brigades, the coordination with civilian actors, and the progress and forms of strategic mobility.

The dramatic increase in military exercises in the Arctic in the past decade, combined with strategic drills in other military districts and actual combat experience gained during military operations abroad, have significantly enhanced the Russian operational capability. The country today is better prepared to participate in complex military operations in the Arctic than it was a decade ago. Russia's ability to limit and deny access has increased accordingly. The armed forces in the Arctic have become a more efficient and flexible tool with which to exercise Russian influence, whether directly or indirectly. Russia's enhanced military strength has further exacerbated the asymmetry of power in the region. While many of its endeavors in the Arctic can be perceived as defensive in nature, Russian military capabilities can also be used

offensively, as exemplified in exercises and operations abroad. Although Russia acknowledges and prepares for Arctic-specific challenges and security threats, the Arctic security space is integrated into the country's broader defense system and is liable to be activated in a potential future confrontation or conflict involving great powers elsewhere. With their increased mobility, armed forces deployed in the region can also be transferred rapidly outside of it as needed. The trend of drawing on resources from JSC North to support operations in other Russian military districts and abroad is likely to continue, in part because Russia's military capacities remain limited.

The extensive military development plans and investments underline Russia's interest in, and long-term thinking about, the Arctic as a part of the country's broader military strategy and economic future. Despite its worsening economic and financial situation, Russia continues to prioritize military modernization. The political leadership has invested so much prestige in Arctic development that any scaling down of ambition could play poorly in the current domestic narrative. Defense industry interests are also committed to the large-scale, expensive, and long-term investments in the Arctic. However, just how many of these plans Russia will be able to carry out remains uncertain for a number of reasons. Russia is struggling with several protracted challenges, including economic decline, negative demographic trends, rampant corruption, and an inefficient defense industry, to name but a few. The contrast between Russia's spectacular plans for the Arctic and sober realities is made plain by the basic working conditions on military construction sites in the region. Months without pay, lack of basic supplies, and even hunger were reported in 2015

(e.g., on Kotelny Island, in Franz Josef Land, and on Cape Schmidt); such conditions have led to strikes by construction workers, a development that exacerbated program delays.⁸⁹

Russia's financial problems have already pressed the government to revise the ambitious state armament program for the period 2016–2025, which had to be postponed by 3 years.⁹⁰ Since Russia is facing acute security challenges in other parts of the country and abroad, curtailment of some of the Arctic projects seems likely. In any case, Russia's failure to modernize and develop a coherent economic strategy threatens implementation and long-term sustainability of these investments.

ENDNOTES - CHAPTER 14

1. "Pres-reliz po Osnovam gosudarstvennoi politiki Rossiiskoi Federatsii v Arktike na period do 2020 goda i dal'neishuyu perspektivu" ("Press release on the Fundamentals of the state policy of the Russian Federation in the Arctic for the period up to 2020 and further perspective"), Sovet Bezopasnosti Rossiiskoi Federatsii, Moskva (The Security Council of the Russian Federation), March 27, 2009; Sergey Lavrov, "Remarks by Russian Minister of Foreign Affairs Sergey Lavrov at Arctic Council Session," Tromsø, Norway, Ministry of Internal Affairs of the Russian Federation, April 29, 2009; Vladimir Putin, "Vystuplenie na plenarnom zasedanii III Mezhdunarodnogo arkticheskogo foruma 'Arktika—territoriya dialoga'" ("Speech at the plenary session of the 3d International Arctic Forum, 'The Arctic—A Territory of Dialogue'"), Prezident Rossii, September 25, 2013.

2. Effectuated at the various levels by such organizations as the Russian-Norwegian Fishery Commission (bilateral), the Euro-Barents Arctic Council (subregional), the Arctic Council (regional), and the International Maritime Organization (global); Olav Schram Stokke, "Environmental Security in the Arctic: The Case for Multilevel Governance," *International Journal*, Vol. 66, 2011, pp. 835-848.

3. Remarks and answers to questions by Russian Minister of Foreign Affairs Sergey Lavrov at an open lecture on current issues in Russian foreign policy, Ministry of Foreign Affairs of the Russian Federation, Moscow, Russia, October 20, 2014, available from http://www.mid.ru/en/foreign_policy/news/-/asset_publisher/cKNonkJE02Bw/content/id/716270; S. Lavrov, quoted in "The Arctic Is No Place for Military Blocks," *Voice of Russia*, October 15, 2009.

4. Compare to Katarzyna Zysk, "Military Aspects of Russia's Arctic Policies: Hard Power and Natural Resources," in James Kraska, ed., *Arctic Security in an Age of Climate Change*, Cambridge, UK: Cambridge University Press, pp. 85-106.

5. "Lavrov: No Enhancement of Russian Military Presence in the North," *Barents Observer*, April 30, 2009. Compare to Zysk, "Military Aspects of Russia's Arctic Policies," pp. 85-106.

6. Remarks by Sergei Shoigu, quoted in "In 2014 Russia Will Station Troops All Over the Arctic Region," *RIA Novosti*, October 21, 2014.

7. "'Sever' Arktiki" ("The North' of the Arctic"), *Rossiiskaya gazeta*, December 1, 2014.

8. "Russian Defense Ministry deploys S-300, S-400 air defense missile systems in Arctic," TASS, December 9, 2015, available from <http://tass.com/defense/842758>.

9. Vladimir Putin's remarks at the meeting devoted to discussion of Russia's Maritime Doctrine, President of Russia, Moscow, Russia, July 26, 2015, available from <http://en.kremlin.ru/events/president/news/50060>; "Russian security chief: Atlantic and Arctic are Russia's maritime policy priorities," TASS, September 1, 2015.

10. Vadim Koval, "Voina—voinoi, a Arktika po planu" ("War is war, but the Arctic according to the plan"), *Nezavisimoe voennoe obozrenie*, January 15, 2016.

11. "Russia to complete creation of Arctic forces by 2018—defense minister," TASS, October 22, 2015, available from https://www.rbth.com/news/2015/10/22/russia-to-complete-creation-of-arctic-forces-by-2018-defense-minister_502699.

12. See for instance, interview with Nikolai Patrushev, “Sovbez v serdts Arktiki” (“The Security Council in the heart of the Arctic”), *Vesti Nedeli*, September 14, 2008; Dmitry Medvedev, quoted in Elena Krivyakina, “Ostupat’ Rossii nekuda, pozadi—Arktika” (“Russia has nowhere to retreat, behind is the Arctic”), *Komsomolskaya pravda*, March 19, 2010.

13. Putin’s remarks during meeting of the Security Council on state policy in the Arctic, President of Russia, Moscow, Russia, April 22, 2014, available from <http://en.kremlin.ru/events/president/news/20845>.

14. Alexander Stukalin, “Bears and Blackjacks Are Back. What Next?” *The Moscow Defense Brief*, Vol. 22, 2010, available from <http://mdb.cast.ru/mdb/4-2010/item4/article1/?form=print>.

15. Vladimir Putin’s remarks at the meeting devoted to discussion of Russia’s Maritime Doctrine, President of Russia, Moscow, July 26, 2015, available from <http://en.kremlin.ru/events/president/news/50060>.

16. “Genshtab VS: Obiedinnoe strategicheskoe komandovanie budet zashchishchat’ interesy RF v Arktike” (“The General Staff of the Russian Armed Forces: The Joint Strategic Command will defend Russia’s interests in the Arctic”), TASS, February 17, 2014; compare to Katarzyna Zysk, “Russia’s Naval Ambitions: Driving Forces and Constraints,” in Peter Dutton, Robert Ross, and Øystein Tunsjø, eds., *Twenty-First Century Seapower: Cooperation and Conflict at Sea*, Abington, UK: Routledge, 2012, pp. 112-135.

17. This concerns Ukrainian gas turbine engines and German diesel power units for the *Admiral Grigorovich*-class frigates and *Gremyashchiiy*-class corvettes.

18. Zysk, “Russia’s Naval Ambitions.”

19. Viktor Litovkin, “Genshtab delaet stavku na strategicheskie sily” (“The General Staff is betting on strategic forces”), *Nezavisimoe voennoe obozrenie*, February 15, 2012; Denis Nizhegorodtsev, “Shoigu porutshil Genshtabu uchest ugrozu ‘mgnovennogo globalnogo udara’” (“Shoigu instructed the General Staff to take into account the threat of a prompt global strike”), *Vzglyad*,

December 16, 2013; "Genshtab obyavil o popytkakh Zapada oslabit yadernye sily Rossii" ("The General Staff has revealed the West's attempts to weaken Russia's nuclear forces"), *Voенno-promyshlennyi kurer*, December 10, 2014.

20. "Osnovy gosudarstvennoi politiki Rossiiskoi Federatsii v Arktike na period do 2020 goda i dal'neishuyu perspektivu" ("Fundamentals of the state policy of the Russian Federation in the Arctic for the period until 2020 and beyond"), Security Council of the Russian Federation, Moscow, Russia, September 18, 2008.

21. Meeting of the Security Council on state policy in the Arctic, Moscow, Russia, April 22, 2014, available from <http://en.kremlin.ru/events/president/news/20845>.

22. Katarzyna Zysk, "Maritime Security and International Order at Sea in the Arctic," in Jo Inge Bekkevold and Geoffrey Till, eds., *International Order at Sea. How it is challenged. How it is maintained*, Basingstoke, UK: MacMillan Palgrave, 2016.

23. "Russian deputy PM explains necessity of military bases in Arctic," TASS, November 20, 2015; see also interview with Nikolai Patrushev in "Russian security chief: Atlantic and Arctic are Russia's maritime policy priorities," TASS, September 1, 2015, available from http://tass.ru/en/russia/817906?_ga=2.78107156.187810441.1542748023-2081438930.1542748021.

24. "Russian security chief: Atlantic and Arctic are Russia's maritime policy priorities."

25. Katarzyna Zysk, "Managing Military Change in Russia," in Jo Inge Bekkevold, Ian Bowers, and Michael Raska, eds., *Security, Strategy and Military Change in the 21st Century. Cross-Regional Perspectives*, Abingdon, UK: Routledge, pp. 155-177.

26. Valerii Gerasimov, quoted in Yurii Gavrilov, "Genshtab otsenil ugrozy" ("The General Staff has assessed threats"), *Rossiiskaya gazeta*, February 15, 2013; Dmitry Medvedev, "Vystuplenie na zasedanii Soveta Bezopasnosti po voprosam razvitiya sudostroeniya" ("Speech at the Security Council's meeting on the development of shipbuilding"), President of Russia, June 9, 2010. See also "Rogozin: Za Arktiku razvorachivaetsya tselaya bitva"

("Rogozin: A whole battle is unfolding over the Arctic"), *Vzglyad*, December 20, 2013.

27. Deputy Chief of the General Staff Anatolii Nogovitsin, quoted in Olga Kolesnichenko, "Arktika—prioritet rossiiskoi vneshnei politiki" ("The Arctic—The priority of the Russian Foreign Policy"), *Voенno-promyshlennyi kurer*, August 26, 2009.

28. "Genshtab dolozhil o real'nykh rezul'tatakh voennoi reformy" ("The General Staff reported on the actual results of the military reform"), *Odnako.org*, February 14, 2013.

29. Commission on the Limits of the Continental Shelf (CLCS) Outer limits of the continental shelf beyond 200 nautical miles from the baselines: Submissions to the Commission, Submission by the Russian Federation, United Nations Division for Ocean Affairs and Law of the Sea, available from http://www.un.org/Depts/los/clcs_new/submissions_files/submission_rus.htm.

30. "Rossmotrenie zayavki Rossiiskoi Federatsii v Komissiyu OON na rasshirenie kontinental'nogo shel'fa v Severnom Ledovitom okeane zaplanirovano na sleduyushchem plenarnom zasedanii" ("Consideration of the application of the Russian Federation to the UN commission regarding the extension of the continental shelf in the Arctic Ocean is scheduled for the next plenary session"), Moscow, Russia: Russian Ministry of Natural Resources and Ecology, August 5, 2015.

31. Partial Revised Submission of the Russian Federation to the Commission on the Limits of the Continental Shelf in respect of the Continental Shelf of the Russian Federation in the Arctic Ocean, Executive Summary, UN Commission on the Limits of the Continental Shelf, 2015, available from http://www.un.org/depts/los/clcs_new/submissions_files/rus01_rev15/2015_08_03_Exec_Summary_English.pdf.

32. The United Nations Convention on the Law of the Sea (A historical perspective), New York: UN Office of Legal Affairs, Division for Ocean Affairs and the Law of the Sea, 1998, available from http://www.un.org/Depts/los/convention_agreements/convention_historical_perspective.htm.

33. Katarzyna Zysk, "Russia and the High North. Security and Defense Perspective," in Sven G. Holtmark and Brooke A. Smith-Windsor, eds., *Security Prospects in the High North: Geostategic Thaw or Freeze?* Rome, Italy: NATO Defense College, 2009, pp. 112-116.

34. Postanovlenie "O pravitel'stvennoi komissiii po obespecheniyu rossiiskogo prisutstviya na arhipelage Shpitsbergen" ("Government Decree 'On the Governmental Commission for ensuring Russian presence at the Svalbard archipelago'"), Moscow, Russia: the Russian Government, April 10, 2007, available from http://www.pravo.gov.ru/proxy/ips/?doc_itself=&backlink=1&nd=102113181&page=1&rdk=0#10; "V strategicheskikh interesakh Rossii" ("In the strategic interests of Russia"), Moscow, Russia: The Council of Federation of the Federal Assembly of the Russian Federation, July 2007; "Strategiya razvitiya Arkticheskoi zony Rossiiskoi Federatsii i obespecheniya natsional'noi bezopasnosti na period do 2020 goda" ("Strategy for the Development of the Arctic Zone of the Russian Federation and ensuring national security for the period up to 2020"), Moscow, Russia: The Russian Government, September 8, 2014, available from https://minec.gov-murman.ru/activities/strat_plan/arkticzone/. See also documents and activity of the Governmental Commission for Securing Russian Presence at the Svalbard Archipelago, available from <http://government.ru/department/131/events/>.

35. "Russia prepares for future combat in the Arctic," *RIA Novosti*, June 24, 2008; "Russian Navy resumes military presence near Svalbard," *RIA Novosti*, July 14, 2008; "VS RF obespechat interesy Rossii v Arktike—Minoborony" ("The Russian Armed Forces will secure Russia's interests in the Arctic—Ministry of Defence"), *RIA Novosti*, June 10, 2008.

36. For instance, in February 2015, Rosneft postponed exploration in several Arctic licenses. "'Rosneft' prosit perenesti razrabotku shel'fa" ("Rosneft requests to postpone the development of the shelf"), *Vedomosti*, February 19, 2015.

37. "IMF Executive Board Concludes 2016 Article IV Consultation with the Russian Federation," Press Release, Washington, DC: International Monetary Fund, July 13, 2016; see also *Russia Economic Report*, Washington, DC: The World Bank, No. 36, November 2016.

38. Zysk, "Maritime Security and International Order at Sea in the Arctic."

39. Quoted in "Severnyi morskoi put' uvelichit gruzooborot v 50 raz" ("The Northern Sea Route will increase the freight traffic 50 times"), *Izvestiya*, August 7, 2011.

40. "Northern Sea Route No Alternative to Suez—Deputy Minister," *The Barents Observer*, December 19, 2013.

41. For the statistics, see Northern Sea Route Information Office, Kirkenes, Norway, available from <http://arctic-lio.com/>; "Northern Sea Route—focus on domestic projects," *The Barents Observer*, October 17, 2015.

42. Atle Staalesen, "New low for Northern Sea Route," *The Barents Observer*, February 15, 2016, available from <https://thebarentsobserver.com/en/industry/2016/02/historical-low-northern-sea-route>. The estimates are approximate and can vary depending on the definition of a full transit passage along the NSR.

43. *Ibid.*

44. "V Zapolyare razvernuto novoe voiskovoe obiedinenie" ("New military command created in the Arctic"), *Nezavisimaya gazeta*, December 30, 2015.

45. Julian Cooper, "Russia's State Armament Programme to 2020: A Quantitative Assessment of Implementation 2011-2015," FOI Report, Stockholm, Sweden: Swedish Defence Research Agency, March 2016; "Russian Military Expenditure: Data, Analysis and Issues," FOI Report, Stockholm, Sweden: Swedish Defence Research Agency, September 2013; "Gosudarstvo potratit bole 13 trln rublei na programme vooruzhenii s 2011 po 2020 god" ("The state will spend more than 13 trillion rubles on the armament program in the period from 2011 to 2020"), *Rossiiskaya gazeta*, August 12, 2010.

46. *Voennaya doktrina Rossiiskoi Federatsii (Military doctrine of the Russian Federation)*, December 25, 2014.

47. In earlier announcements, eight *Borei* SSNBs were to be built by 2015. Vladimir Shcherbakov, "Nash flot prevzoidët

amerikanskii. No tol'ko po tipazhu" ("Our Navy will exceed the American one. But only according to the quantity of ship types"), *Nezavisimoe voennoe obozrenie*, March 25-31, 2011; "L'vinaya dolya byudzheta MO idet VMF, v osnovnom yadernym silam—Ivanov" ("The lion's share of the MoD's budget goes to the Navy"), *RIA Novosti*, June 3, 2009; Lev Sidorenko, "Russian Navy future developments," *Military Parade*, No. 3, 2008.

48. Zysk, "Russia's Naval Ambitions."

49. "V Rossii poyavilas' 45-ya armiya VVS i PVO Severnogo flota" ("Russia has got the 45th Army of the Air Force and Air Defence of the Northern Fleet"), Interfax News Agency, January 29, 2016; "Sformirovana 45-ya armiya VVS i VPO Severnogo flota dlya vozdušnogo kontrolya v Arktike" ("The 45th Army of Air Force and Air Defence of the Northern Fleet created to control air domain in the Arctic"), *Vzglyad*, January 29, 2016.

50. "Na boevoe dezhurstvo v Arktike zastupil novyi zenitnyi raketnyi polk PVO Severnogo flota" ("New air defense missile regiment of the Northern Fleet put on alert in the Arctic"), Ministry of Defence of the Russian Federation, Moscow, Russia, December 9, 2015, available from http://function.mil.ru/news_page/country/more.htm?id=12071253@egNews; "Ministr oborony Rossii general armii Sergei Shoigu proviel ocherednoe zasedanie Kollegii voennogo vedomstva" ("Russian Minister of Defence General of the Army Sergei Shoigu held an ordinary meeting of the Collegium of the Ministry of Defence"), Ministry of Defence of the Russian Federation, Moscow, Russia, January 29, 2016, available from http://function.mil.ru/news_page/country/more.htm?id=12075558@egNews.

51. "V Rossii poyavilas' 45-ya armiya VVS i PVO Severnogo flota" ("Russia has got the 45th Army of the Air Force and Air Defence of the Northern Fleet"), Interfax News Agency, January 29, 2016; "Russian Defense Ministry deploys S-300, S-400 air defense missile systems in Arctic," TASS, December 9, 2015, available from <http://tass.com/defense/842758>; "Sformirovana 45-ya armiya VVS i VPO Severnogo flota dlya vozdušnogo kontrolya v Arktike" ("The 45th Army of Air Force and Air Defence of the Northern Fleet created to control air domain in the Arctic"), *Vzglyad*, January 29, 2016.

52. "Russian Defense Ministry deploys S-300, S-400 air defense missile systems in Arctic," TASS, December 9, 2015.

53. "Russia to complete creation of Arctic forces by 2018 – defense minister," TASS, October 22, 2015, available from https://www.rbth.com/news/2015/10/22/rusia-to-complete-creation-of-arctic-forces-by-2018-defense-minister_502699.

54. "'Sever' Arktiki" ("The North' of the Arctic"), *Rossiiskaya gazeta*, December 1, 2014.

55. "Arktika popala pod sanktsii Gosdepartamenta" ("The Arctic fell under the sanctions of the State Department"), *Izvestiya*, November 2, 2015. In 2016, Lemashevskii, quoted in *Sputnik*, said that Western sanctions would not affect the Arktika project because the design of satellites is originally based on domestic technologies. The postponed launch date of the first satellite has not been changed, however. "Russia's Arktika Satellite Network to Be Launched in 2017 Despite Sanctions," *Sputnik*, January 4, 2016.

56. "Russia's Arktika Satellite Network to Be Launched in 2017 Despite Sanctions."

57. Ivan Petrov, "Kurs na arktiku" ("The course for the Arctic"), *Rossiiskaya gazeta*, November 27, 2014; "Russian Defense Ministry deploys S-300, S-400 air defense missile systems in Arctic," TASS, December 9, 2015, available from https://www.rbth.com/news/2015/10/22/rusia-to-complete-creation-of-arctic-forces-by-2018-defense-minister_502699; "Tri zenitnykh raketno-pushechnykh kompleksa 'Pantsir'-S1' prokhodyat ispytaniya v Arktike" ("Three short to medium range surface to air missile and anti-aircraft artillery systems 'Pantsir-S1' are tested in the Arctic"), *Novosti VPK*, February 25, 2015; "Nazvana data premery arkticheskogo 'Pantsirya-S'" ("The date of the premier of the 'Pantsir-S' decided"), *Rossiiskaya gazeta*, May 14, 2016.

58. "Osnovy gosudarstvennoi politiki Rossiiskoi Federatsii v Arktike na period do 2020 goda i dal'neishuyu perspektivu" ("Foundations of the state policy of the Russian Federation in the Arctic for the period up to 2020 and beyond").

59. "V Rossii ishchut zamenu vmesto vezdekhoda BvS, kotoryi dolzhen byl zakupatsya za rubezhem" ("In Russia, they are looking for a replacement of the BvS all terrain armoured vehicle, which was supposed to be purchased abroad"), *Voennyi informator*, March 20, 2013.

60. Viktor Khudoleyev, "Pervaya arkticheskaya" ("The first Arctic"), *Krasnaya zvezda*, January 14, 2015; Ivan Petrov, "Kurs na arktiku" ("The course on the Arctic"), *Rossiiskaya gazeta*, November 27, 2014; "Ministerstvo oborony Rossii берет Arktiku pod osobyi kontrol" ("The Russian Ministry of Defense takes the Arctic under a special control"), *Voennoe obozrenie*, January 22, 2015.

61. "Ministerstvo oborony Rossii берет Arktiku pod osobyi kontrol" ("The Russian Ministry of Defense takes the Arctic under a special control"), *Voennoe obozrenie*, January 22, 2015.

62. "Olenei poslali v razvedku" ("The deer were sent for reconnaissance"), *Rossiiskaya gazeta*, February 1, 2016.

63. Press release, Rosatom, November 13, 2012, available from <http://www.rosatom.ru/>; Arild Moe and Lawson Brigham, "Organization and management challenges of Russia's icebreaker fleet," *Geographical Review*, 2016, pp. 1-21.

64. "Russia floats out 1st military ice-breaker over half-century," TASS, June 10, 2016, available from <http://tass.com/defense/881283>.

65. "Russia to Lay Down Two New Generation Corvettes in 2016," *Sputnik*, January 21, 2016; "Minoborony Rossii zaklyuchilo kontrakt na stroitel'stvo ne imeyushchikh mirovykh analogov patrol'nykh korablei ledovogo klassa" ("The Russian Ministry of Defense has concluded a contract for the construction of ice class patrol boats that have no analogues in the world"), Moscow, Russia: Ministry of Defence of the Russian Federation, May 4, 2016, available from http://function.mil.ru/news_page/country/more.htm?id=12084410@egNews; "Russia to Lay Down Two New Generation Corvettes in 2016," *Sputnik*, January 21, 2016.

66. "Minoborony Rossii zaklyuchilo kontrakt na stroitel'stvo ne imeyushchikh mirovykh analogov patrol'nykh korablei ledovogo klassa" ("The Russian Ministry of Defense

has concluded a contract for the construction of ice class patrol boats that have no analogues in the world"); "Ledokoly dlya VMF Rossii vooruzhat 'Kalibrom'" ("Ice breakers for the Russian Navy will be armed with 'Kalibr'"), *Rossiiskaya gazeta*, May 10, 2016.

67. Katarzyna Zysk, "The New Normal: Russia to Increase Northern European Naval Operations," *Jane's Navy International*, Vol. 121, Iss. 7, September 2016.

68. V. Masorin, quoted in A. Gavrilenko, "Rossiiskii flot vernulsya v Arktiku" ("The Russian Navy has returned to the Arctic"), *Krasnaya zvezda*, September 26, 2006; A. Shemetov, "O shturmanskoi sluzhbe Voennno-Morskogo Flota" ("On the navigational service of the Russian Navy"), *Morskoj sbornik*, January 2007.

69. Johan Norberg, "Training to Fight—Russia's Major Military Exercises 2011-2014," FOI Report, Stockholm, Sweden: Swedish Defence Research Agency, 2015, pp. 30-33.

70. *Ibid.*, pp. 37-38.

71. *Ibid.*, pp. 42-43.

72. "Russia to expand Mediterranean fleet to 10 warships—Navy chief," *Russia Today*, September 13, 2013.

73. "Special-purpose vessel sailed from Severomorsk weapons facility to Syria," *The Barents Observer*, October 21, 2015; "Otryad korablei i sudov Severnogo flota vo glave s BPK 'Vitse-admiral Kulakov» vernulsya v Severomorsk'" ("A detachment of ships and vessels of the Northern Fleet, led by the destroyer Vice-Admiral Kulakov, returned to Severomorsk"), Ministry of Defence of the Russian Federation, April 4, 2016, available from http://function.mil.ru/news_page/country/more.htm?id=12082207@egNews.

74. "Russia's 200th Motorized Infantry Brigade in the Donbass: The Tell-Tale Tanks," *Bellingcat*, July 4, 2016, available from <https://www.bellingcat.com/news/uk-and-europe/2016/07/04/russias-200th-motorized-infantry-brigade-donbass-tell-tale-tanks/>.

75. "350 Russian paratroopers land on Arctic island in exercises," TASS, March 14, 2014.

76. "350 Russian paratroopers land on Arctic island in exercises," TASS, March 14, 2014; "Russian paratroopers dropped onto drifting ice in Arctic Ocean," *Russia Today*, April 9, 2014.

77. Vladimir Mukhin, "Desantniki osvaiayut arkticheskii teatr voennykh deistvii" ("The paratroopers learn to master the Arctic theater of military operations"), *Nezavisimaya gazeta*, April 11, 2016.

78. "Chechenskii spetsnaz zavershil ekspeditsiyu na Severnyi polyus" ("The Chechen spetsnaz has completed an expedition to the North Pole"), Head and Government of the Chechen Republic, North Caucasia, April 13, 2016, available from <http://www.chechnya.gov.ru/page.php?r=126&id=17862>.

79. See for instance, "Atomnyi raketnyi kreiser 'Petr Velikii' otpravilsya na boevoe dezhurstvo" ("The nuclear-powered battle-cruiser Peter the Great set off on combat duty"), *TV Zvezda*, September 25, 2012; "Otryad korablei Severnogo flota sovershaet pokhod po Severnomu morskomu puti" ("A detachment of ships of the Northern Fleet is sailing along the Northern Sea Route"), *TV Zvezda*, September 10, 2013; "Korabli Severnogo flota Rossii vernulis' iz pokhoda v Arktiku" ("The ships of the Northern Fleet returned from the mission in the Arctic"), *RIA Novosti*, October 9, 2014; "Korabli Severnogo flota ushli v ocherednoi dal'nii arkticheskii pokhod" ("The ships of the Northern Fleet set off for another long mission in the Arctic"), *RIA Novosti*, August 16, 2015; "Korabli Severnogo flota vzyali kurs na Arktiku" ("The ships of the Northern Fleet have taken a course on the arctic"), *RIA Novosti*, August 30, 2016.

80. Vladimir Mukhin, "Desantniki osvaiayut arkticheskii teatr voennykh deistvii" ("The paratroopers learn to master the Arctic theater of military operations"), *Nezavisimaya gazeta*, April 11, 2016.

81. "Northern Fleet held exercises with missile, air defence and artillery firings in the Arctic," Ministry of Defence of the Russian Federation, Moscow, Russia, September 17, 2015, available from https://eng.mil.ru/en/news_page/country/more.htm?id=12056488@egNews; see also "Russia's Northern Fleet fires Pantsyr-S1 air defense systems in Arctic drills," TASS, September 17, 2015; "Morskoi desant arkticheskoi brigady SF vysadilsya

na ostrov Kotel'nyj" ("The marine paratroopers of the Arctic brigade of the Northern Fleet landed on the Kotelny Island"), *Vesti*, September 15, 2015, available from <http://www.vesti.ru/doc.html?id=2664330>; "Russia's Northern Fleet Arctic brigade lands Marines on Kotelny Island for first time," TASS, September 15, 2015.

82. "Aerospace Forces transport aviation crews landed An-22 on grass strip for the first time in the last 20 years," Ministry of Defence of the Russian Federation, Moscow, Russia, January 29, 2016, available from http://eng.mil.ru/en/news_page/country/more.htm?id=12075624@egNews.

83. "Na Novoi Zemle proshlo antiterroristicheskoe uchenie s motostrelkovymi podrazdeleniyami arkticheskoi brigady Severnogo flota" ("An anti-terrorist exercise was conducted with the motorized rifle divisions of the Northern Fleet's Arctic Brigade on Novaya Zemlya"), Ministry of Defence of the Russian Federation, Moscow, Russia, October 7, 2015, available from <http://structure.mil.ru/structure/okruga/west/news/more.htm?id=12060046@egNews>.

84. For instance, "Yekipazh raketnogo kreisera «Piotr Velikii» proviel uchenie po okazaniyu pomoshchi sudam, sleduyushchim Severnym morskim putem" ("The crew of battlecruiser Peter the Great conducted a training in assisting ships sailing along the Northern Sea Route"), Ministry of Defence of the Russian Federation, Moscow, Russia, September 25, 2012, available from <http://structure.mil.ru/structure/forces/navy/news/more.htm?id=11376485@egNews>.

85. "Razliv' 1200 tonn nefti likvidiruyut na rossiiskikh ucheniyakh 'Arktika'" ("The spill of 1,200 tons of oil is cleaned during the Russian exercise 'the Arctic'"), *RIA Novosti*, August 6, 2014; "Patrushev: SShA izoliruyut sebya, ne uchastvuya v Arkticheskome soвете" ("Patrushev: The USA is isolating itself by not participating in the Arctic Council"), *RIA Novosti*, August 8, 2014.

86. One of many examples is Russia's use of military threats in the context of Sweden and Finland's discussion of membership in NATO. See "Russia to boost military force if Sweden allies with NATO—senator," *Russia Today*, April 29, 2016; Thomas Nilsen, "Russian sub launched Kalibr missile day after warning against Swedish NATO membership," *The Barents Observer*, April

30, 2016; Thomas Nilsen, "Russia threatens to deploy missiles if Sweden joins NATO," *The Barents Observer*, April 29, 2016.

87. Vladimir Putin's remarks at the extended meeting of the Collegium of the Ministry of Defense, President of Russia, Moscow, Russia, December 19, 2014, <http://www.kremlin.ru/>. See also Dmitry Rogozin's statement: "Russian deputy PM explains necessity of military bases in Arctic," TASS, November 20, 2015.

88. Zysk, "Military Aspects of Russia's Arctic Policies."

89. Grigorii Tumanov and Ivan Safronov, "Voennaya baza na myse Shmidta podverglas' zamorozke" ("The military base at Cape Schmidt has been frozen"), *Kommersant*, November 6, 2015; Tatyana Britskaya, "Glubokaya otmorozka" ("Deep Thaw"), *Novaya gazeta*, November 23, 2015.

90. "Utverzhdienie gosprogrammy vooruzheniya perenesli na tri goda" ("The approval of the state armament has been postponed for three years"), Interfax News Agency, February 19, 2015.

CHAPTER 15. RUSSIAN MILITARY INTERESTS IN THE BALTIC REGION IN LIGHT OF THE CRIMEAN OPERATION AND THE DEVELOPMENT OF THE PERCEPTIONS IN THE MILITARY SPHERE

Pentti Forsström

INTRODUCTION

The Baltic Sea and the states on its shores comprise an interesting geopolitical area, and not just from the military perspective.¹ The area has been regarded as a stable and peaceful region for more than 2 decades from the perspective of security. These words are more diplomatic than reality-based. Of course, there has not been a war or armed conflict in Northern Europe since the Baltic States regained their independence. Nevertheless, in 2014, the Ukraine conflict heavily affected the security perceptions of different actors in Europe, including the Baltic region. On the one hand, some saw that Russia's actions in Crimea and in Eastern Ukraine represented a culmination point of alarming developments that had been observed for some years and a breakout of tensions that had been hidden ever since the collapse of the Soviet Union. On the other, some saw these actions as a turning point in the development toward peace and stability, which could have been prevented with the right mix of diplomacy.²

Though the relations between the European Union (EU) and Russia before the crisis in Ukraine were neither openhearted, nor at their best, a certain element of partnership and cooperation still existed. Leaders of EU states (particularly the major ones) used to meet regularly with Russian President Vladimir Putin, in

varied formats. Twice a year, the EU-Russia summit meeting took place and negotiations concerning a new Partnership and Cooperation Agreement were underway, not to mention the dialogue in the North Atlantic Treaty Organization (NATO)-Russia Council. Meanwhile, relations between the Baltic States and Russia have always been of a much poorer quality. Excluding a short period at the beginning of the 1990s, the Baltic States were, in certain respects, political allies with Russia in fighting against Mikhail Gorbachev in the disintegrating Soviet Union. Relations between the Baltic States and Russia have been permeated with distrust, the roots of which lie in the history of Soviet occupation and diametrically contradictory interpretations of this history.³

In comparing the attitude of the three Baltic States before the crisis in Ukraine, it is easy to notice that Latvia and Estonia were much more moderate and avoided an open confrontation with Russia, whereas Lithuania adopted a more critical position and did not believe that a pragmatic attitude toward Russia would yield any benefit.⁴ This is explained by the fact that Latvia and Estonia sought to maintain a bilateral dialogue with Russia in order to conclude agreements on border demarcation with Russia, despite of the fact that they became NATO members in 2004. Latvia did sign the border agreement with Russia in 2007, which was considered a breakthrough in their bilateral relations. In fact, due to these growing bilateral ties, Russia also benefited, because Latvia postponed its plans to implement the Third Energy Package of the EU. When it comes to Estonia, the complicated border negotiations with Russia ended with signatures on the eve of the annexation of Crimea, on January 16, 2014. Due to worsening EU-Russia relations, it remains unclear

when, or if, the border agreement will be ratified.⁵ Until the present day, societies and political elites of the Baltic States consider that they have no guarantee that history will not repeat itself, whereas the leaders of Russia have never really attempted to dispel that distrust.⁶

The Crimean operation conducted by Russia in the spring of 2014 took the European community by surprise and shock. It brought into focus Russia's ability to combine a full spectrum of means in securing what is seen as the country's core national security interests. The perceptions of Russian military capabilities changed dramatically from being perceived as an inefficient, outdated, and badly organized system into one that poses a serious threat to its neighbors, the whole of Europe, and even to global peace.⁷ This, to me at least, indicates that somewhere there was a hidden dream of the things that already are in the past.⁸

The recent discussions on the possible Russian threat toward the Baltic originate apparently from the states concerned. As Agnia Grigas put it:

Russia's annexation of Crimea in March 2014 and subsequent war in eastern Ukraine prompted discussions in the Baltic States and among their allies of whether a similar Russian hybrid warfare intervention in these NATO member states would be possible. But does Russia have motives in the Baltic States that could lead it to risk confrontation with NATO and challenge the collective security guarantees of Article 5?⁹

Grigas refers to the question, "what is possibly the greatest motive of all – using the Baltic States to destabilize the NATO alliance."¹⁰ How appealing this may sound, as it already keeps the answer in itself.

Russia's operation in Ukraine has undoubtedly increased mistrust and the perception of Russian

unpredictability in the Baltic States, even though it may not appear imminent and seems unlikely that Russia could want a war with NATO. According to former Latvian Defense Minister Imants Viesturs Liegis, “The dialogue-seeking approach with Russia, along with seeking ways to restore confidence must continue, but with constant realization that Russia’s words often do not match the actions.” According to Liegis:

it remains in our mutual interest that Russia’s behaviour again becomes more constructive and reverts to a respect for international law. Until then, there would be grounds for ‘scaremongering’ and we should continue with our actions to strengthen deterrence.¹¹

Elevated concerns about national security have led most countries in the Baltic region to increase their defense spending. Narratives of hard security and territorial defense have made a comeback alongside efforts to counter so-called hybrid threats. As a result, economic interaction, people-to-people contacts, and cooperation on soft security issues between the two “poles” have suffered. The threat perceptions, especially in the Baltic States, experienced a quick and perhaps predictable evolutionary development, the result of which was the fact that Russia has been perceived as an existential and acute threat to the European security order on a regional level and to the national security of these states.¹²

Some experts even say that the Ukraine crisis marks a new era in the relationship between Russia and the West—an era in which there are no shared rules. The EU has failed in its post-Cold War efforts to include Russia into a sphere of shared norms. Russia has thrown away the rule of law and violated the core standards of European security.¹³ However, a more

detailed study of Russia's views on the development of the European security order would enable a more nuanced understanding of the picture, and it might not be seen as simple as it is described. One might even say that Russia is now sharing the rules that the West has followed for more than the past 15 years. As Fyodor Lukyanov stated:

the European and world order . . . resulted in a gradual erosion of the principles on which the previous world order was based—such as balance of power, respect for sovereignty, non-interference, and the need for United Nations (UN) Security Council authorization for any use of force.¹⁴

THE CRIMEAN OPERATION AND ITS ESSENCE

Of course, national security is one of the top priorities on any nation's agenda. A trend indicating that this is changing has not yet been observed. On the contrary, the strategy to achieve this varies considerably. There are also many explanations as to why Russia conducted an operation that led it to annex Crimea. According to Professor Daniel Treisman, there are three possible interpretations. First, Russia made a defensive attack as a form of response to the threat of NATO's further expansion toward Russian borders. The second refers to a Russian project to gradually recapture the former territories of the Soviet Union. Third, according to Professor Treisman, annexation is a hastily conceived response to the unforeseen fall of Ukrainian President Viktor Yanukovich. The occupation of Crimea was an impulsive decision made by President Putin, rather than a decision based on careful strategic assessment in order to fulfill possible geopolitical ambitions.¹⁵

The author believes that all of these three possible interpretations are part of the truth, to a certain extent, as Professor Treisman explains in his article. They are complementary, rather than exclusive toward one another. One can easily understand the significance of the Crimean peninsula to the Russian military from the perspective of strategic defense planning. Control over Crimea opens the way to monitor the Black Sea area and the activities by different actors on the sea and strengthens Russia's military capabilities that, before March 2013, were conditional. This is because the Russian Black Sea Fleet and other installations in Crimea were there under an agreement, the continuity of which could not be taken for granted. On the other hand, the Black Sea is an internal water basin, a *mare clausum* (a closed sea)—i.e., a free exit from there to blue waters is conditional in the hands of another state, namely Turkey. Taking into account military-technical developments, the meaning of physical control over an area is diminishing.¹⁶ Russia probably could easily defend against sea attacks without constructing defense capabilities on land in Crimea, especially taking into account the fact that Russia practically broadened its real dimensions in the eastern part of the Black Sea in the aftermath of the Georgian War in August 2008. As Fyodor Lukyanov put it: "it feeds the determination not to make any new 'concessions' to the West."¹⁷

The author's second argument refers to possible and most probable changes in Ukraine's political orientation in late 2013 and early 2014. It was clear that the new Ukrainian leadership would lean on a West-oriented policy after Yanukovich's regime. This policy would seek deeper economic relations with the EU on one hand, and a military umbrella from NATO on the other.¹⁸ It is debatable how long these processes would

have taken, but the situation was definitely interpreted in Russia that it is “now or never.” The window of opportunity for action was open, and over some time, this window would have been closing. It was not only the future membership of Ukraine in NATO but also the fact that, in this likely scenario, Russia’s strategic military assets, namely the Black Sea Fleet, would have to pay rents to its historical adversary for its presence in Crimea or even worse, was to be expelled and expropriated from its ancient military bases. The author does not know even one Russian who is in favor of this scenario becoming reality.

A third issue worth mentioning while reiterating the second argument is the idea of national sovereignty of Russia. The tendencies of perceptions written in Russian military doctrines and practical actions in recent years explicitly indicate that the development of Russian military is headed toward self-sufficiency. This means that the decision to use military force should be unconditionally in Russia’s own hands. This applies also to the very core goal Russia is pursuing in its security policy and which lies in gaining a status of being a prominent and equal actor in world politics.

In Crimea, Russia conducted a military operation, despite it being described as a hybrid operation, using mainly soft power in order to solve political, economic, and military problems and disputes concerning Russia’s military presence in Ukraine.¹⁹ At the same time, Russia constructed preconditions to enhance its capabilities in the military sphere in the southwestern strategic direction. In this regard, it is not difficult to assess that the sudden military interference, especially the subsequent reconstruction of the presence in Syria, is an act of continuity to expand the early-warning system and gain time for the Russian military-

political decision making. Of course, there are also other already known motives. When this description is projected to the Baltic States, one can find similar problems and disputes existing in the relations between these states and Russia.

RUSSIAN INTERESTS IN THE BALTIC SEA REGION

Can we project these ideas to the situation in the Baltic States? The situation in the Baltic area for Russia in the 1990s resembled the geostrategic situation of the Soviet Union before World War II. The only major difference was that Russia possessed the Kaliningrad exclave. After the Cold War, when Russia left the Baltic area, its position was more difficult than ever from the standpoint of threat perception.²⁰ According to Peter van Ham, northeastern Europe became an important test case for the cooperative security approach toward Russia. At that time, Russian threat perceptions were colored by the Cold War, and represented a mixture of traditional military and some new approaches. Nevertheless, in 1997, Russia unilaterally reduced its land and naval units by 40 percent in its northwestern region, contributing significantly to a more benign security environment among Baltic littoral states.²¹ The author understands there is still one key issue, a vital geostrategic area from the Russian perspective, the significance of which has remained unchanged throughout history—the St. Petersburg area. As a whole, the Baltic area has always been a land and sea strategic defense zone of the Leningrad/St. Petersburg region, and, due to the recent military-technical development, this applies also to air and air space defense.

For Russia, each Baltic country has a different geostrategic significance. Estonia traditionally has been

linked to the passage of the Gulf of Finland and to the defense of the St. Petersburg area. Latvia's position is central, where power can be projected to both north and south. The southernmost Baltic areas are linked to the Central European strategic entity, which is the so-called Northern European plain. This plain is also called the German-Polish lowland. Poland, situated within this plain, has always been a corridor for attacks on Russia. Traditionally, this plain was regarded as a channel of expansion in the eastern end where Moscow, the heart of Russia, is situated. Due to the dissolution of the Warsaw Pact and disintegration of the Soviet Union, Russia's defense system was broken up in the Baltic region more thoroughly than anywhere else in the former Soviet area.²² There is no need to repeat the basic principles of Russian military thinking about "buffer zones."

In this regard, it is understandable that Russian leaders in the 1990s assumed and hoped that the Baltic States' area would form a demilitarized zone after the withdrawal of the troops of the North-Western Group of forces (the former Baltic Military District).²³ The geographical aspects in the area concerned have not changed during the past years. From Russia and its military defense perspective, the situation became worse when Poland joined NATO in 1999 and the Baltic States 5 years later. As Edward Lucas put it, "Russia regards the post-1991 settlement as unfair and unfavourable to its interests." He continues: "Russia is eager to secure the position of its Kaliningrad exclave, but is not particularly interested in the Baltic States for their own sake."²⁴ In this respect, Russia does not want to cut relations totally with the West.

A few conclusions are drawn from this discussion. First, key geostrategic areas of vital significance for

Russia are still the St. Petersburg area with its transit routes to Kaliningrad and further to the Atlantic Ocean through the Danish Straits, and Moscow as the capital and the very core of Russia in all respects. Second, Kaliningrad's geostrategic situation is still of high importance as a Russian bridgehead of surveillance, intelligence, and early warning on one hand and possible threat projection on the other. Third, in this situation, it is more than obvious that the Russian troops situated in Kaliningrad and in northwestern Russia are regarded as "a barometer" of the security dilemma in this area.

The total military-political picture in the Baltic area seems to be equal to the situation in the Black Sea area with the major exception that the three Baltic countries are already members of the Western military alliance. It seems that the security challenges in the Baltic Sea region that Russia faces today are being balanced from both east and west, and are actually not a security dilemma, but a security "trilemma," in which Russia has more to lose than gain. There are, at least now, no major disagreements or disputes that have a feasible military solution. In this, the security "trilemma," by which Russia has to balance the Western military power in the Baltic States' area on one hand, and, at the same time, avoid provoking or frightening the non-NATO countries on the other.

TENDENCIES OF RUSSIAN PERCEPTIONS IN THE MILITARY SPHERE

What can we find out from the development of Russian military perceptions regarding dangers and threats that Russia officially considers it is facing?²⁵ These tendencies are identified in the author's recent working paper, "The Tendencies in the Russian Military

Doctrines after the Dissolution of the Soviet Union.”²⁶ First is that the threat perception of a direct military attack or aggression against Russia has remained at a low level. This is written more or less in an unchanged way in all of Russia’s military doctrines. This does not mean that military threats did not exist; quite the contrary. There are some threats, and in some areas, these dangers are becoming more alarming for Russia. This perception can be assessed as a “must” from the military perspective on the one hand, but on the other, due to the vagueness of this formulation, Russia obviously wants to avoid giving a political sign to a certain state or an area. One can assess with good reason that this also refers to the situation in the Baltic Sea area.

Undoubtedly, the military doctrine has the function of giving a political signal to Russia’s outside world. In accordance with the policy of Boris Yeltsin’s time, the essence of the military doctrine is introverted by its nature. This means that, in the doctrine text, the main emphasis was in dealing with internal matters of Russia, and the main Western Cold War enemy in the form of NATO was “handled with care.” This is quite understandable, but while the political atmosphere of that time was filled with positive, idealistic expectations, what comes to Russian relations with the West? This perception became more realistic by the end of the 1990s.

In the 1990s, Russia assessed armed conflicts as factors of potential danger that have, in certain circumstances, a propensity to become an actual threat toward Russia. Evidently, this was related to those considerable amounts of Russian forces abroad, in the Baltic States, and in other Eastern European states. One possible conflict detonator at that time was fears of thievery of weapons and other military hardware,

as well as the absence of agreements related to the presence and withdrawal of these forces back to the Russian territory. This situation was seen in Russia as having a possibility to escalate.

These challenges were actually solved by withdrawing the group of forces abroad to the Russian mainland, which took place with regard to the Baltic States by September 1, 1994.²⁷ The withdrawal of the North-Western Group of Forces was a clear sign by which Russia indicated its willingness to reduce the conflict potential in the Baltic area, and on the other hand secure the possibility to use these units, which were equipped with relatively modern weaponry and material, in other areas of Russia.²⁸ This operation was conducted consistent with the political atmosphere at that time as shown by Russian President Yeltsin. As Hannes Adomeit put it, "Russia . . . had an interest in 'including the Russian military in common European security structures'."²⁹ Of course, there were also internal factors in Russia affecting this operation. The ongoing power struggle in Moscow was not among the least of them.

A clear change happened when Putin was put in charge of Russia in early 2000 and when he approved the revised *2000 Military Doctrine*. In this document, many issues, which in the 1990s were considered potential dangers, were reconsidered as apparent threats. In doing this, Putin obviously wanted to give a signal enhancing his capacity as a new and strong leader, whose basic approach to security was far more serious than was his predecessor's. Despite the internal problems that Russia had then, it is apparent that with this message, Putin aimed at preventing "newly independent" states bordering Russia from joining NATO. The positive approach and measures taken did

not calm down the orientation of the Baltic States to become members of the Alliance and did not have a desired effect in the late 1990s. In this way, the *2000 Military Doctrine* was an explicit and clear warning sign of the change in Russian attitudes toward NATO as a military alliance.³⁰ However, as we know, it did not change the Western course of the Baltic States' policies.

Regarding threats in the form of territorial disputes or claims, Russia constantly considers them a permanent threat despite the fact that territorial claims or demands to demarcate the borders against Russia have been expressed officially only by China and Japan.³¹ Of course, the next one to express territorial claims was Ukraine. Regarding the severity of these kinds of dangers, one can consider them as a potential dispute, the probability of which is very low (as with the Baltic States, for example). By this method, Russian authorities are expressing their own vital interests—that is, the inviolability of the borders and territory and Russia's integrity as an entity, at least when it is adequate and suitable for Russian interests.

This basic approach was changed again during the presidency of Dmitry Medvedev when the threats defined by President Putin were downgraded to factors of potential danger or risks. In this way, they were more suitable for the political atmosphere and for the personality of President Medvedev.³² However, this external signal was not changed in the *2000 Military Doctrine*. The classification was more pragmatic and focused, but nevertheless in accordance with Russian policies.

In Russian military perceptions, there are two threat factors that have drawn special attention despite the fact that they have been included in the lists of dangers and threats, among others. First is the enlargement of

military alliances and blocs that might compromise Russian interests. One has to note that in the *Military Doctrines* of 1993 and 2000, there was no direct reference to the Western Alliance. On the contrary, in the *Military Doctrines* of 2010 and 2014, NATO's expansion was written explicitly in the form of a threat. As I mentioned, the 2000 *Military Doctrine* confirmed this issue as a threat clearly directed at NATO and its applicant-states as a warning. Of these applicants, most critical from the Russian point of view were the Baltic States, but later on, Georgia and Ukraine. All of these countries are the closest countries neighboring Russia. In this situation, one can easily assess that the main goal for Russia was to prevent a military-political change in the countries close to its borders. Military strategic change was not very likely, at least in the short-term perspective.

In the *Military Doctrines* to follow (2010 and 2014), NATO was assessed from the military-technical and strategic perspectives; that is, the main emphasis in threat assessments in Russia was placed on development of the infrastructure, assets, and military capabilities. In this way, the focus was shifted from political issues to basic questions of so-called hard security. In this respect, the question of NATO enlargement is perceived as a potential threat related to future assets and capabilities that do not form an acute threat to Russia's military security. By indicating that NATO is considered only as a potential threat, Russia wants to announce that this issue is certainly noted and assessed, but it wants to avoid explicitly provoking the situation and possibly being verbally accused of interfering in the internal matters of its neighbors. To confirm this approach, Russia developed the Agreement on European Security initiative in June 2008.³³ As is

well known, this initiative did not receive any support. Still, occasionally Russia refers to it and so keeps it as “unfinished business” on the policy-planning table.

In the 1990s and in the beginning of the 21st century, NATO was considered mainly as a potential danger, but from 2010 onwards, NATO’s activity was regarded as a functional threat to Russia’s military security. This was written in the *2010 Military Doctrine* as an aspiration to allow NATO to fulfill “global functions.” In the *2014 Military Doctrine*, this issue was written to suggest that these functions were already conducted in practice. Moreover, this perception was enhanced by NATO’s growing power capabilities. By these formulations, Russia wants to indicate that NATO is approaching the point where Russia starts to perceive NATO as an apparent military threat.³⁴ According to official perceptions over the situation where we are now, and at least theoretically, Russia is in favor of saving the possibility to have dialogue with NATO and the West. In practical terms, this interpretation is expressed by the fact that it is not the military exercises and temporal sending of military assets to the Baltic States. But when the question concerns a U.S. or NATO military presence on a permanent basis in the Baltic States, the Russians most probably perceive that the situation is becoming alarming, and it constitutes an apparent threat and danger to Russia’s military security.³⁵

The second factor of possible threat, which is also in the *Military Doctrines*, divided quite systematically into small pieces, concerns the broad concept of strategic and regional stability. In the *1993 Military Doctrine*, the issue was related to the agreements and restrictions in them on nuclear weapons and to the qualitative and quantitative development of this weaponry. In the beginning of 2000, the concept of strategic stability

was enlarged from the the mutual balance of nuclear weapons and warheads and the prevention of their engagement to the prerequisites for their use. From the year 2010 forward, Russia perceived the prevention of the functioning of nuclear weapons and all systems related to it as the most serious military threat.

Russian perceptions concerning violations of international agreements and noncompliance with provisions in previous arms control agreements are also related to the concept of strategic stability. On one hand, this interpretation can be clearly related to the Anti-Ballistic Missile (ABM) Treaty that was in effect until 2002, but also the Conventional Armed Forces in Europe (CFE) Treaty on the other. It seems that Russia is in favor of achieving mutually binding arms limitation agreements as a core pillar of strategic stability. Because of this, from the *2010 Military Doctrine* forward (and practically much earlier), Russia has perceived the ABM Defence Project in Europe as a threat to its security and its deterrence potential also from the perspective of future balance in nuclear weapons. It is assumed that Russia is afraid of its possible influence on its capabilities to conduct a nuclear attack, in both first strike and retaliation forms. The approach Russia presented was the proposal of so-called sectoral missile defense.³⁶ It seems that this is probably only the tip of the iceberg of distrust remaining in the relations between Russia and the West—namely, the United States.

This factor being a threat to Russian security was further broadened by the fact that the *2014 Military Doctrine* included a new threat, called the possible “global strike” against Russia. This was accompanied by the intention to militarize and arm space by stationing strategic non-nuclear weapons with high precision

to new areas. Russia was broadening the concept of strategic stability and its concerns regarding the relevance of nuclear weapons as a safeguard in case its strategic stability is diminished. The core of this concern was that Russia realized its capabilities to maintain the status of a nuclear superpower was in danger of being limited even more.

We can connect the threat perceptions outlined in Russia's military doctrines concerning the increasing amount of troops along Russian borders that might break the balance of power to regional stability. This also can be connected to the threat perceptions mentioned in the military doctrines. In 2000, this perception was written in the doctrine in the form of building up of a group of forces or strengthening already existing ones along the Russian or its allies' borders or close maritime areas. This latter point has been repeated in the 2010 and 2014 *Military Doctrines*.

In the 2014 *Military Doctrine*, this perception was enhanced by the possible threat of putting pressure on Russia in political or/and military spheres. To this possibility was added a supplementary threat of projecting troops to countries bordering Russia or its allies without the resolution of the UN. Of course, these perceptions are quite understandable and logical, which not only shows that military activities and changes in it are dynamic but also that the basic approach to security is based on power. Of course, the fact that this dynamic of other countries' or alliances' military actions have other grounds, and factors not related to the Russian military policy is problematic. Other states have their own perceptions as to how to develop their own military.

This is how far one can go in analyzing Russian military doctrines, because the nearer to military

operational matters you go, the less has been written in the military doctrines. Nevertheless, the author mentions two issues related to possible use of Russian military power. These issues are clearly indicated by the tendency concerning Russia's possible use of its nuclear weapons. In short, this tendency is related to the concept of national sovereignty on one hand, to the conditional possible use of these weapons on the other. This tendency indicates that Russia has removed all the conditions and restrictions to use nuclear weapons that, in fact, Russia itself has composed and declared. In other words, it is only Russia all by itself that considers how and when the nuclear weapons can or cannot be used. By this, Russia is indicating the enhancing deterrent factor of these weapons, but also is creating the conditions for their flexible use in a way that might be feasible in a certain situation, according to their own assessment.

Another issue to strengthen Russian deterrence is the tendency to increase the sovereignty of nuclear assets. This means that the leading principle in strengthening deterrence capabilities is to build or rebuild the nuclear and related infrastructure on Russian soil. This means that, if Russia depends on another country's will or decision, there are no restrictions affecting the possible use of these weapon systems. In this manner, this principle strengthens Russian sovereignty (i.e., Russian nuclear assets or their possible use is unconditionally in Russia's own hands). This tendency means that the overall readiness of the Russian armed forces and its nuclear deterrent capabilities are reaching a higher level and are much nearer to the possible battlefield without any thresholds. In practical terms, the consequences of this tendency are twofold. At the same time, it is perceived that Russia's deterrence becomes

more effective, Russia's ability to react or proact with nuclear weapons becomes more executable. Of course, this also includes the non-strategic or tactical nuclear weapons.

The increase of the sovereignty of Russian nuclear assets means also that the decision whether to use nuclear weapons can be made solely according to the judgment of the high command of the Russian armed forces in the case of nuclear war. In addition, Russian nuclear weapons can be assessed as a possible additional element in a battlefield where only so-called conventional weapons are perceived to be used. In this light, the perceptions in the military doctrines are referring to the tactical nuclear weapons used for deterrence against the so-called global strike by strategic nuclear weapons.

Regarding the Russian conventional forces, the main idea since the beginning of the 1990s has been the necessity of having troops in an adequate and constant level of readiness. Interestingly, this idea has produced practical outcomes only after 2008-2009. Before this, there were plans and concepts to reform the armed forces, but they did not lead to any concrete results. Despite the changes in and around Russia, the tasks of the armed forces were carried out with old Soviet-style organizations, practices, and procedures. Quite contrary to this is the post-2008 main idea of development of the function of the conventional military assets to form them as part of the strategic deterrence.

Today, the Russians are calling this a non-nuclear deterrence. This means in practice that Russia has the intention to deter the possible and probable threats on the ground mainly at the tactical or operational level. The author understands that Russia has realized that nuclear weapons as such have not been able to deter

the conflicts in local or regional levels on one hand or to boost military-technical cooperation on the other. In this regard, the change is fundamental—valuing a bayonet of common, well-trained soldiers more than the assets of a nuclear superpower. Of course, the reality is not so black and white. In any case, the significance of the conventional forces has grown relatively with regard to the perceived threats on local and regional levels.

As such, the development of the conventional forces leads to a relative decrease of the nuclear weapons' functions and to where the nuclear forces are regarded as an attribute of the status of a nuclear state and related to political and strategic issues with that status. This also leads to the clarification of the significance of the nuclear weapon and its function as a deterrent. Russia has understood that the nuclear assets and the deterrent factor of it must be safeguarded, while the time has gone when different parties tried to reach the balance by increasing the number of nuclear weapons. Because of these threat perceptions, Russia must now accelerate the development of the conventional element of the whole military system. The reform of the Russian armed forces, going on for some 8 years, is a clear indication that Russia prefers qualitative and integrated measures to the quantitative ones.

The main objective of this reform for the quantitatively decreased conventional forces has been the readiness to react adequately to emerging security problems or threats. This is quite understandable from the perspective of perceived features of possible future war. In this regard, what Russia has achieved militarily while operating in the Crimean peninsula and in Syria is the increased early-warning time against possible aggression of an adversary. This again is

understandable from the perspective of future wars that, as the Russians perceive them, might be highly unpredictable. This leads back to a question in the Baltic area. Russia already possesses the Kaliningrad exclave as part of it. Is there any additional value for Russia's trying to enlarge its territory?

CONCLUSIONS

Russia's military strategic interests in the Baltic area are more or less the same as they previously have been—the areas of St. Petersburg and Kaliningrad, maritime connections to and from there, and the air space above them. In a broader perspective, the significance of Moscow must be linked to this issue. However, from the military perspective, the whole of Europe is forming toward Russia's Western strategic direction, which comprises parts of the Arctic Sea. Because of this, the Baltic States' area is only a subregional entity but is of relatively high importance from the perspective of safeguarding Russia's vital strategic interests. It is worth noting that the Kaliningrad exclave is in fact inside NATO and forms not only an interface between NATO and Russia but also in practical terms makes the friction more probable than elsewhere. This friction, as we know now, has gained more tension lately than ever before during the past 20 years.

From Russia's perspective, there are a few explanations for this. First, the capabilities of the Russian armed forces have definitely increased, which, when related to Russia's growing self-confidence, means that, consequently, Russia has to take care of its interests also in the Baltic area.³⁷ Russia is monitoring very carefully the development of the situation and different activities in this area. More or less, Russia's activity is passive by its nature, but in recent years, Russia has

also taken more active measures. Frequent violations of the air space of neighboring states are a good example. These violations can be seen as signals of warning and as acts of testing the reactions and capabilities of the opposite party.

In the spring of 2016, there was an incident of this sort on the Southern Baltic Sea, which testifies to the severity of the aforementioned friction. Unfortunately, an incident of this kind always has the potential of escalation. In this regard, the window of opportunity is open for a worsening situation. This means Russia will definitely try to look after the traffic through this window. The window, it seems to the author at least, is becoming wider all the time. Former Chief of the General Staff General Anatoly Kvashnin said that in the beginning of 2003, there was only a small step from peace to a conflict.

It seems that in today's situation in the Baltic area, there are grounds for more serious and alarming scenarios regarding relations between Russia and NATO. This has become possible because there are no limitations for military activity, limitations that were previously based on an agreement on conventional weapons. Military activity of a state can be conducted primarily by its own assessments and resources. The tendency toward sovereignty identified in the development of Russian perceptions in its *Military Doctrines* indicates that the trajectory of the global security order unfortunately is leading toward anarchy. The Russian conclusion of this tendency is that one has to rely on a self-sufficient approach in protecting one's security.

In addition to the increased military capabilities and self-confidence, Russia has also displayed a quite firm decisiveness and overall readiness not only to show but also to use adapted force in unexpected ways in

various situations. The Crimean operation was a clear indication. It was also Russia's warning signal that the time of concessions is already in the past, concessions that, in Russia's thinking, might lead to further deterioration of its security.

Based on the things mentioned earlier, one conclusion is that Russia has shifted from conducting a reactive military and security policy, as was the case in the first years at the beginning of this century, to a more active and even proactive manner in its actions. It also indicates that Russia is pursuing management of regional and global security orders or at least their development. This is what Russia is aiming at, and in Europe's scale, it already has achieved this goal at least partly. The logic in this seems quite irrational, but not from Russia's perspective while it is reaching for positive ends by also using negative means. Russia has used also positive means regarding the Baltic States in the first 10 years after the dissolution of the Soviet Union with an already known end.

The primary goal of the reform of Russian armed forces is to improve the readiness for action. There is also a collateral aim defined as improved and enhanced non-nuclear deterrence. This deterrence has been strengthened by cutting away the self-made restrictions for the use of the nuclear weapons. This means that, despite their role in power politics, in principle they can be used according to Russia's own judgment and decision. Russia alone defines solely if or when its national existence is threatened.

In this way, the content of the concept of traditional strategic deterrence is broadened to cover both Russian nuclear and conventional assets. On the other hand, the abolishment of the restrictions for the use of nuclear weapons means that the dividing line between

waging war with conventional or with nuclear weapons is vanishing. When the principle of surprise is connected to this idea, it seems that Russia wants to indicate that non-strategic nuclear weapons could be regarded as “normal” assets on a conventional battlefield. This is the basis upon which Russia regulates the level of deterrence in the Kaliningrad exclave, for example. By introducing the concept of pre-emptive strike to its military means, Russia is trying to enhance its non-nuclear deterrence even further.

It should be remembered that the Crimean operation and activities in Eastern Ukraine were “safe” from the Russian perspective (i.e., Russia did not have to test possible reactions of NATO as a military alliance on the opposing side). On the contrary, Russia was testing its capability to prevent Ukraine from joining NATO, or at least to slow the process down. From Russia’s perspective, the operation was “a pre-emptive strike à la Russe.” On the other hand, in this context, one can assume that the shooting down of a Russian interceptor in Syria by the Turkish air force was a reciprocal price for the violation of the territorial integrity of a NATO country. This can be regarded as directly proportional regarding the Baltic States as well.

The situation between the Baltic States and Russia seems as if it was a simple matter of distrust, fear, and possible threats. However, when the perspective is broadened to cover the whole of the Baltic Sea area, it becomes much more complicated, at least from Russia’s point of view. Russia has to take seriously into account the “security trilemma” if it wants to avoid making any more concessions to the West and maintaining the status quo of the military-strategic balance in the area that has been prevalent for more than 10 years. This means that Russia has to aim at management of the

security interface between it and NATO on one hand, but on the other, it has to avoid the deterioration of the situation to an extreme and especially avoid provocations that might lead to changes in the military-political and strategic situations.³⁸ In this regard, so far the situation seems to be developing on a basis of dynamics that, according to Russian Foreign Minister Sergey Lavrov, are “nothing personal, pure business.”³⁹

At the very end, the author raised a question of the deterministic nature of the public debate concerning the situation in the Baltic area and, in broader perspective, the relations between the West and Russia. It seems that Russia, in its development of the situation, is determined to move forward to a critical point where there is only distrust, accusations, and confrontation. All this is a matter of time. The cooperative approach to security seems to be forgotten. Apparently, the situation between the West and Russia is not yet so alarming that resources should be used to seek the way of situation management that would be suitable for all parties. However, life, and the military, are full of situations to choose from—nothing personal, pure business. Are they?

ENDNOTES - CHAPTER 15

1. The opinions expressed in this chapter are those of the author and do not necessarily reflect the views of the Finnish National Defence University, the Finnish Defence Forces, or the Government of Finland.

2. Kristi Raik, “Overshadowed by the Russia-West Rift: Security in the Baltic Sea Region,” in Kinga Redłowska, ed., *Baltic Visions: European Cooperation, Regional Stability*, Warsaw, Poland: Finnish Institute of International Affairs (FIIA), 2015.

3. Gediminas Vitkus, "Baltic States' Foreign Policies vis-a-vis Russia, in Light of the Ukraine Crisis," *Russian Analytical Digest*, No. 176, December 4, 2015, available from <http://e-collection.library.ethz.ch/eserv/eth:48559/eth-48559-01.pdf#search=%22Baltic%22>. Also see Vladimir Kara-Murza, "Russia and the Baltics: Once Friend, Now Foe," *World Affairs Journal*, January/February 2015, available from <http://www.worldaffairsjournal.org/article/russia-and-baltics-once-friend-now-foe>.

4. This refers to the problem of the Mažeikiai Oil Refinery and blocking of a takeover by Russian-controlled companies. The refinery eventually was sold to a Polish company, but after that, there was a cut in oil supply from Russia.

5. Vitkus.

6. Ibid. For example, none of Russia's Presidents have ever visited the Baltic States.

7. Ibid.

8. See also Andrew Monaghan, "A 'New Cold War'? Abusing History, Misunderstanding Russia," Research Paper, Russia, London, UK: Chatham House, Russia and Eurasia Programme, May 2015, p. 11, available from https://www.chathamhouse.org/sites/files/chathamhouse/field/field_document/20150522ColdWarRussiaMonaghan.pdf. Monaghan wrote:

This reflects and confirms the tendency of many officials and observers to refer wistfully to the Cold War, seeing it as a time both of Western success and of reassuring rationality and predictability on the part of the Soviet adversary.

9. Agnia Grigas, "Russia's Motives in the Baltic States - Analysis," Philadelphia, PA: Foreign Policy Research Institute, December 10, 2015, available from <http://www.eurasiareview.com/10122015-russias-motives-in-the-baltic-states-analysis/>.

10. Ibid.

11. Both quotes are from Latvian Ambassador to Hungary, Former Defence Minister Imants Viesturs Liegis, *The Russian threat to the Baltics: Scaremongering or reality?* April 8, 2015, available

from <https://www.europeanleadershipnetwork.org/commentary/the-russian-threat-to-the-baltics-scaremongering-or-reality/>.

12. Raik, "Overshadowed by the Russia-West Rift: Security in the Baltic Sea Region." Raik is stating that the EU is one and Russia is the other pole in Europe.

13. Kristi Raik, "How should Europe respond to Russia? The Finnish View," *Commentary*, November 18, 2014, available from http://www.ecfr.eu/article/commentary_how_should_europe_respond_to_russia_the_finnish_view355#.

14. Fyodor Lukyanov, "Break-up of the Soviet Union: Russia's Obsession and Turning Point," *Moscow Defence Brief*, No. 2, 2016, p. 3.

15. Daniel Treisman, "Why Putin Took Crimea: The Gambler in the Kremlin," *Foreign Affairs*, May/June 2016, p. 47, available from <https://www.foreignaffairs.com/articles/ukraine/2016-04-18/why-putin-took-crimea>.

16. Russian capabilities on space-stationed surveillance system are under construction.

17. Lukyanov, p. 2.

18. This refers to possible renewal of the Ukraine-European Union Association Agreement, the ratification process which Yanukovich stalled in late 2013.

19. The economic problems I refer to are the rental arrangements of the Russian military on Ukrainian soil.

20. Historical aspects are discussed in Ari Puheloinen, "Russia's Geopolitical Interest in the Baltic Area," *Finnish Defence Studies*, No. 12, Helsinki, Finland: National Defence College, 1999.

21. Peter van Ham, "Testing Cooperative Security in Europe's New North: American Perspectives and Policies," *Russia and the United States in Northern European Security*, Programme on The Northern Dimension of the Common Foreign and Security Policy (CFSP), Vol. 5, Helsinki, Finland: The Finnish Institute of International Affairs and Institut für Europäische Sicherheit, Kauhava, Finland, 2000, pp. 80-81.

22. Ari Puheloinen, "Russia's Geopolitical Interest in the Baltic Area," *Finnish Defence Studies*, Vol. 12, Helsinki, Finland: National Defence College, 1999, pp. 57-59.

23. V. V. Zhurkin, ed., *Bezopasnost' Evropy (The Security of Europe)*, Moscow, Russia: Institute of Europe, Russian Academy of Sciences (RAS), 2011, p. 266, available from <http://www.ieras.ru/pub/monografii/bezop.pdf>, accessed June 1, 2015.

24. Edward Lucas, "The Coming Storm," *Baltic Sea Security Report*, Helsinki, Finland: CEPA, June 2015, pp. 2, 12.

25. Without going into details of the concepts, one can say briefly that the Russian concept of "danger" means the state of conditions and balance of power in which an actor has the potential capability to cause harm to another's security in a certain situation and with certain conditions prevailing. What separates "danger" from the Russian concept of "threat" is mainly the intentions and real readiness to use military means and tools in certain conditions against another actor in a way that composes a threat to the other's interests. See P. K. Forsström, "The Military Security of the CIS and the Main Ways of Safeguarding it in the Contemporary Phase," The Course Thesis of the Author in the General Staff Academy of the Russian Armed Forces, Moscow, Russia, 2009.

26. Pentti Forsström, *Venäjän sotilasdoktriinien kehittyminen Neuvostoliiton hajoamisen jälkeen (The Tendencies in the Russian Military Doctrines after the Dissolution of The Soviet Union)*, Series 3: Working Papers No. 3, Helsinki, Finland: National Defence University, Department of Warfare, Spring 2016.

27. The early-warning radar station in Skrunda, Latvia, was removed on August 31, 1998.

28. For example, the 107th Motorized Rifle Division was withdrawn to Solnetchnogorsk, a town near Moscow, Russia. On the other hand, for example, the 103d Motorized Rifle Division was resubordinated to the Baltic Fleet in 1991.

29. Hannes Adomeit, "Inside or Outside? Russia's Policies Towards NATO," Working Paper, FG 5 2007/01, Berlin, Germany: Research Unit Russia/Commonwealth of Independent

States (CIS), Stiftung Wissenschaft und Politik, German Institute for International and Security Affairs, January 2007.

30. See also Adomeit, p. 6. According to Fyodor Lukyanov, the war against Serbia in 1999 was the turning point for Russian perceptions of the “new world order.” See Lukyanov, p. 3.

31. In the 1990s, there were problems in demarcating the borders between Russia and Estonia, Latvia, Lithuania, Ukraine, Azerbaijan, Mongolia, China, and Japan. In practice, the problems concerning state borders with all these states have been agreed upon. Among some nongovernmental organizations (NGOs) or groups of people in countries mentioned earlier, including those in Finland, there are ideas and discussion concerning the return of some historical parts of territories. In detail, see N. G. Palamar’, “K istorii territorial’nyh pritzazanii k RF so storony sopredel’nyh gosudarstv” (“About History of the Territorial Claims to Russian Federation by the Neighbouring States”), *Vestnik Akademii Vojennykh Nauk (Magazine of the Academy of the Military Sciences)*, No. 4, Iss. 41, 2012, pp. 132-137.

32. Of course, military doctrine is based on an overall situational assessment of the military political environment around Russia.

33. According to the draft of the document Russia’s intention was to create a Euro-Atlantic space that would be a military-politically united and indivisible area. With this aim, President Medvedev made the initiative concerning the unity of security by a legally binding, international agreement. The idea was that no state or organization could strengthen its security by another’s cost. See the draft, August 21, 2015, available from <http://www.kremlin.ru/events/president/news/6152>.

34. “Moscow does not genuinely fear an invasion emanating from the new NATO-member states,” quote from Kirk Bennett, “Condemned to Frustration,” *The American Interest*, April 1, 2016, available from <http://www.the-american-interest.com/2016/04/01/condemned-to-frustration>.

35. See for example, Igor Korotchenko, “Strany Baltii—zalozhniki mifa o rossijskoje vojennoj ugroze” (“The Baltic States—Hostages of a Myth Related to Russian Military Threat”), May

14, 2014, available from http://www.rubaltic.ru/article/politika-i-obshchestvo/20140514_ugroza/, accessed April 14, 2016. Igor Korotchenko said in the interview, “No v ljubom sluhaje s totshki zrenija ugroz nalitshije na terrotorii sosednej strany vojennoj bazy NATO-eto ugroza dlja Rossii” (“In every case from the point of view of threats presence of a military base of NATO on the territory of neighboring state on permanent basis—it is a threat to Russia”).

36. On the question of the missile defense in Europe, see Keir Giles and Andrew Monaghan, *European Missile Defence and Russia*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, July 2014.

37. Usually in this respect, I raise a question of who will defend the gas pipeline through the Baltic Sea—the Russian armed forces; the Bundeswehr; or both, jointly? And against whom?

38. In this respect, it would be interesting to research the question of the influence of nonalignment state-actors on the management and dynamics of the security dilemma between superpowers.

39. See Michael Winiarski, “Om Sverige går med i Nato kommer vi att vidta nödvändiga åtgärder” (“If Sweden joins NATO, we’ll take necessary actions”), *Dagens Nyheter*, April 28, 2016, available from <http://fokus.dn.se/lavrov/>. The article is based on the interview of Russian Foreign Minister Sergey Lavrov conducted on April 28, 2016.

**CHAPTER 16. WHEN DO YOU KNOW IT IS A
BRIDGE TOO FAR? EMERGENCY DEPUTIES
COMMITTEE MEETING,
DEFENSE OF THE BALTIC STATES**

Sam Gardiner

This chapter provides an opportunity to “overhear” U.S. decision makers examine the issues associated with a Russian attack on the Baltic States. This portrays a fictional Deputies Committee meeting chaired by the National Security Advisor. The next step logically would be a meeting with the President and the Cabinet secretaries.

On the narrow corridor that would carry the armored drive, there were five major bridges to take. They had to be seized intact by airborne assault. It was the fifth, the critical bridge over the Lower Rhine, sixty-four miles behind the German lines, that worried Lieutenant General Frederick Browning, Deputy Commander, First Airborne Army. Pointing to the Arnhem bridge on the map he asked, ‘How long will it take the armor to reach us?’ Field Marshal Montgomery replied briskly, ‘Two days.’ Still looking at the map, Browning said, ‘We can hold it for four.’ Then he added, ‘But, sir, I think we might be going a bridge too far.’

—Cornelius Ryan¹

BRIEFING

The National Security Advisor opens the Deputies meeting with some sharp statements.

National Security Advisor: The Russian exercise, Zapad, will begin in 48 hours. We have been notified it will involve 20,000 troops. The Russians have often

given us bad numbers; based on preparations of units, we estimate it may be as much as five times that.

We have assessed for the past 10 years that, if the Russians were to attempt to take the Baltic States with a conventional attack, it would come while their units were doing a major exercise in Belarus. Based upon what we have seen—the increased surveillance flight in the Baltic Sea; the increased “spying” activities in Lithuania, Latvia, and Estonia; and their information campaign—we think the Russians are preparing for an attack. The Russian information theme is concentrating on the treatment of Russian speaking minorities as second-class citizens.

The President has asked us to make recommendations on how to deal with the situation and how to react if we are seeing the early stages of a major Russian move.² The President’s question to me was very focused: “What the hell do we do?” There have been suggestions about moving forces to Europe and into the Baltic. He obviously wants recommendations on these options.

Before we get into what we think the Russians are planning, I want to talk about intentions. Assessing intentions involves taking a walk on thin ice, but the assessment is still important.

Why are the Russians close to an attack on the Baltic States? In the first instance, Russian President Vladimir Putin may be responding to the problems of the Russian economy; this would not be the first time a country became adventurous as a way to change domestic focus and Putin probably sees the North Atlantic Treaty Organization (NATO) and the United States as being in a period of weakness. His ultimate target is most likely NATO, to tear the Alliance apart.

Beyond the direct indications, we have seen unusual readiness activities of Russian strategic forces. We have also seen significant snap inspections of Russian nuclear forces in the past few months. The Russians are currently conducting air exercises in the Central Region, practicing deployments that could lead to movements to support a Baltic operation.

The intelligence community has moved the situation with the Russians to the category of Increased Watch. The community is focused. Of concern is the mobilization of Russian railway units and pipeline units.

In addition, an exercise of the 12th Main Directorate is underway. The 12th Main Directorate is the organization responsible for controlling Russian tactical nuclear weapons. Although there have been exercises involving this unit, an exercise in conjunction with a major conventional exercise is very unusual.

We have shared intelligence with NATO, but at this point, a number of nations do not share our assessment of Russian intentions. The Germans believe we are just seeing another Russian exercise.

Let us examine the details.

Staff Briefer: Before going into the conventional battle, it is probably important to address the Russian nuclear weapons situation, the nuclear shadow. That situation is the backdrop for other considerations.

In the past few years, Russia has put a major effort into its capability to use nuclear weapons in the European theater. The Russians have a cruise missile that violated a treaty limitation. The Russians have installed a new engine on the nuclear capable Iskander missile; its most likely range is now 700 kilometers³ (see figure 16-1).



Figure 16-1. Iskander Missile Range from Kaliningrad

Russian doctrine on the use of nuclear weapons has evolved since the end of the Cold War. No first-use was abandoned. After the first Gulf war, the Russians declared that precision conventional munitions were weapons of mass destruction and could require a response with nuclear weapons. More recently, the Russians have embraced a notion that nuclear weapons could be used to de-escalate a conflict. Yes, they have turned some of the Cold War logic on its head.

Doctrine Evolution:

- During the Cold War, Russia made a no first use pledge.
- By 1993, however, Russia abandoned that pledge.
- In 1999 and 2000, Russia introduced a policy of de-escalatory nuclear strikes into its military doctrine, “a strategy envisioning the threat of a

limited nuclear strike that would force an opponent to accept a return to the status quo ante.”⁴

The Russians concluded that an enemy could be made to look for a resolution to the fighting with the shock of a nuclear weapon.

Russian military exercises have practiced the use of a nuclear weapon to end a conflict. In a 1999 exercise, a small-yield weapon was “used” against a NATO air base. In 2009, a nuclear “attack” by Russia was carried out into Poland.

In what might reflect Russian thinking about the use of a nuclear weapon, even within the framework of hybrid warfare, in 2010, the major exercise scenario began with fighting against “gangs.” The fighting moved to the point where a nuclear land mine weapon was used.⁵

We will return to the issue of nuclear weapons later in the presentation.

National Security Advisor: I want to underline what you have just heard. The Russians are serious about theater nuclear weapons. They are much more serious than NATO has been since the end of the Cold War. Ultimately, we have to recommend a position to the President. Do we threaten use of nuclear weapons to keep the Russians out of the Baltic States? Do we remain silent? How important is this as a national security issue?

The staff briefer shows a new slide: In the next part of the briefing, I want to characterize for you what a Russian attack might look like. Before I do that, let me cover a few items.

First, we have to assume the Russians know the force level planned by NATO for the defense of the Baltic States.⁶ They most likely can conclude where

forces will arrive. They can calculate the timing of the arrival of reinforcements.

To add to the picture development, the characters of the early battles for air superiority and sea control in the Baltic will dictate NATO's options.

I will start with our assessment of the opening shots of the fight. We expect the Russians would begin with a major conventional strike with Iskander missiles on NATO air bases in the region. This is of particular concern for the United States because a majority of the air bases we are using, and would use, do not have protective aircraft shelters. In this opening shot, we would have major losses of aircraft on the ground, losses of the magnitude we have not experienced since the Pearl Harbor attack.

I need to mention at this point that the newer Russian missiles have a greatly improved accuracy. These missiles are nothing like the ones we saw used in the invasion of Georgia (see figure 16-2).



Source: U.S. Air Force.

Figure 16-2. Unsheltered U.S. Air Force Aircraft

National Security Advisor: The President needs our recommendation on this issue. Does the United States want to leave its aircraft exposed to destruction with the first shots? Should we deploy our aircraft to bases outside the reach of Russian missiles? The conventional wisdom is that we would put aircraft into Poland and the Baltic States to demonstrate resolve, but I am confident that air force commanders do not want to make them vulnerable. Does having our aircraft exposed deter the Russians, or would that invite attack? I would like the comments of the Deputy Secretary of Defense and Vice Chairman of the Joint Chiefs when we get to the discussions. I have to make another point here. History will know what we have discussed here. I cannot imagine this President, or any President would be comfortable with the judgment of history, a judgment that he put American men and women in a situation where he knew they quite possibly could be killed.

The briefer continues: To understand how the Russians think about attack, there is some history I need to discuss.

Since before World War II, Soviet military theorists have focused on the conditions for successful attack. Most prominent in the theorists is Marshall Mikhail Tukhachevsky. He concluded that a successful attack required two elements: a force that held the enemy in position along the front, and a force that would break through enemy lines. Once the breakthrough took place, the mobile force would destroy the rear of the enemy and lead to an operational victory. During the Cold War, the mobile force was called the Operational Maneuver Group.

As they gained experience during World War II, the Soviets added specifics to the theory. By 1943,

they concluded it was best to have a 1-day separation between the attack by the holding force and the attack by the mobile force. That was adjusted to 3 days later in the war. In 1980, the Soviets reassessed the separation time to 1 day.

The Soviets went beyond days of separation in adding quantification to their maneuver theory. They concluded that the holding force had to achieve an advance rate of approximately 20 kilometers per day. After 4 days, the mobile force had to achieve an advance rate in excess of 100 kilometers a day.⁷

How would maneuver theory be translated into a plan for attacking the Baltic States? The elements of an attack can be seen in the Russian major exercise, Zapad 2013.⁸ Our assessment is that it would look something like this (see figure 16-3).

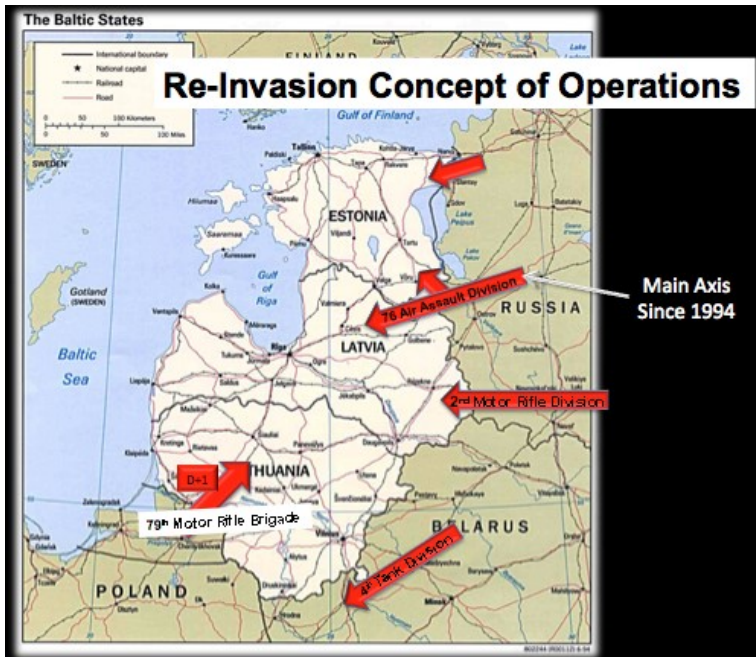


Figure 16-3. Full-Up Russian Attack

From Russian exercises, the positions and readiness of units, observations of the units that were first to get new equipment, and Russian operational art, the plan looks like this:

- The 76th Air Assault Division, a high readiness unit, would have the main attack into Estonia and Latvia.
- The 2d Motor Rifle Division would attack into Latvia, while also having a secondary mission of supporting the attack into Lithuania.
- The 4th Tank Division would have the Poland portion of the mission. It would be tasked with preventing NATO reinforcement, while protecting the flank of the Russian forces in Kaliningrad.
- The 79th Motor Rifle Brigade would attack north out of Kaliningrad. Here we would see Russian maneuver theory in operation.⁹

Adding some important details to the mission of the 4th Tank Division, its initial objective would most likely be to close the Suwalki Gap as well as closing the ground access of NATO reinforcing and resupply units (see figure 16-4).



Figure 16-4. NATO Ports Available to Support a Baltic Defense

Once the Suwalki Gap has been closed, it is easy to envision a follow-on mission for this unit. Protecting Kaliningrad from a Polish attack would put the 4th Tank Division in position to strike the major Polish Port of Gdansk. They do not have to take the port physically, but just put it under artillery fire.

If Gdansk were not usable, NATO would be forced to use ports in Germany. That would create major distance problems. To give a sense of the issue, it is farther from Hamburg to Lithuania than it was from the Normandy beaches into Berlin.

As for the battle for the three Baltic States, how would we expect that to go? The simple answer based upon almost all analyses is that it would go fast. It would go fast in the Russian favor. The dominant reason for quick Russian success would be artillery (see figure 16-5).

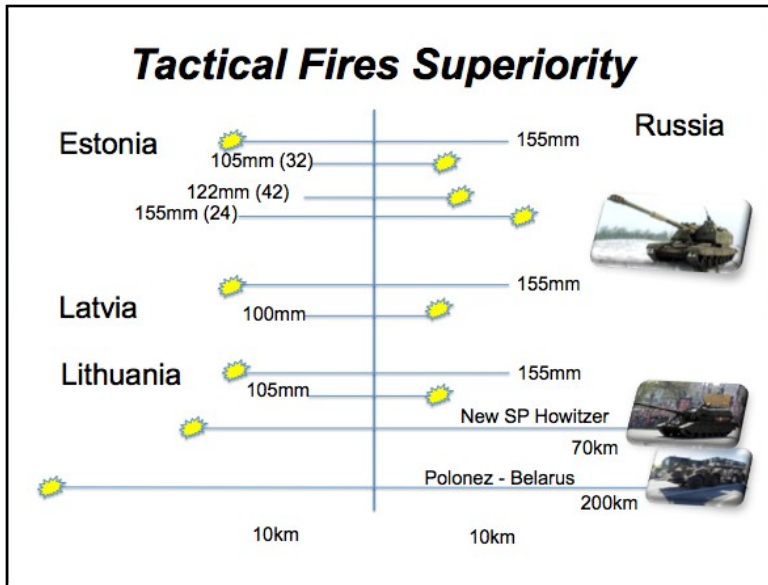


Figure 16-5. Comparative Artillery Ranges

The Russians have called artillery the “God of War.”¹⁰ Unlike in the West where artillery is a supporting arm, for Russia, artillery is a killing arm. By some estimates, over 80 percent of the casualties inflicted on Ukrainian forces in the battles were from artillery.

Russian artillery has a greater range than the guns of the three Baltic countries. Artillery fires would kill the units in most cases before they would even engage the Russians.¹¹

For the Russians, a major lesson of the operations in Georgia was that they needed to be much better with unmanned aerial vehicles (UAVs). Buying a number of older systems from Israel filled some of the gap. They are still a generation or two behind Western nations in this important technology (see figure 16-6).

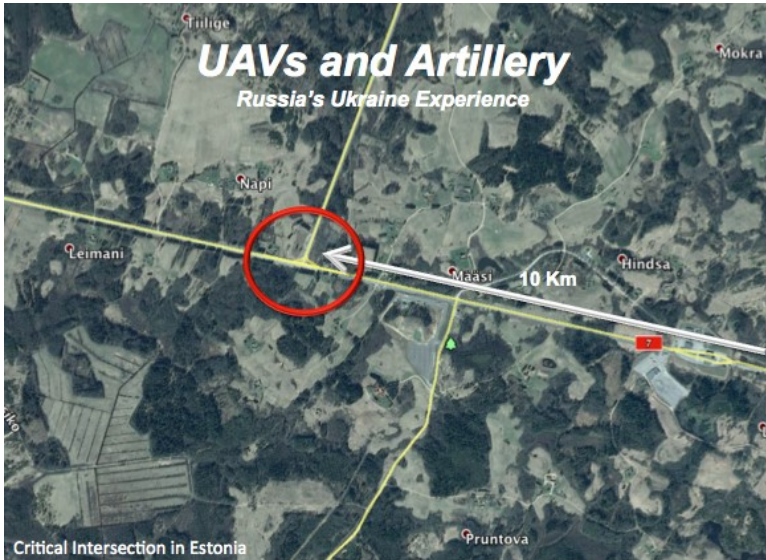


Figure 16-6. A Critical Intersection in Estonia That Would be Targeted Using Russia's Older UAV Technology

From the Ukraine experiences, Russia has developed a technique of picking an intersection with known coordinates. Artillery would be concentrated on the intersection when the UAV identifies activity.

National Security Advisor: I do not want you to look for holes in the assessment at this point. The briefer will talk about the air battle and the battle for control of the Baltic Sea. You need to see the picture as a whole.

The presenter continues: Thank you, sir. With that, I will turn to the air battle. It is probably best to start with an assessment. Russian air defenses are the best in the world. Over the past few years, they have been getting even more lethal.

- Mobility has improved; many systems can “shoot and scoot” inside 5 minutes.
- Radars are actively defended against missile attack.
- Surveillance and acquisition radars are shifting to L-band, UHF-band, and VHF-band, making them more capable against stealth operations.
- Batteries are increasingly designed for autonomous operations.
- Range against aircraft and missiles have virtually doubled since the early 1980s.

Looking at the range of Russian air defense systems, much of this part of the world is covered. The S-400 air defense system, with a range of 400 kilometers, has been deployed to Kaliningrad. The S-400 covers Moscow, and the capability in Belarus connects the coverage. Northern Fleet coverage extends into Finland and Sweden. At the extended range, the lethal coverage is above 30,000 feet (see figure 16-7).



Figure 16-7. S-400 Air Defense Coverage

We need to make another point here. This is not just about the air-to-air battle. Russia generalizes what they call fires. Thinking about the air battle means we need to think in terms of Russian capabilities to deliver fires. NATO will not have superiority over the battlefield if the Russians continue to have a capability to deliver conventional weapons to 700 kilometers. NATO will not have superiority over the battlefield if Russia could still fire artillery rockets over 200 kilometers. NATO will not have air superiority if the Russians can still fly UAVs to find targets for its long-range artillery the way they have in the Ukraine.

Air Force Chief of Staff: Let me comment here. I do not disagree with what we have seen thus far in the briefing. Let me jump to the bottom line. I cannot assure you that we can achieve air superiority in the

way we have known it in earlier wars. There will be times and places where we can dominate, but NATO forces will be threatened by Russian fires. I cannot assure you that we will be able to support the militaries of the Baltic States early in this fight. The early part of this fight will be ugly.

The briefer continues: Let me turn to the battle of the Baltic Sea. Other than strategic missile submarine component, the Russian naval forces have been a low priority for modernization. The Russians, however, have focused on the development of anti-ship missiles and coastal defense systems. One of note is the Bal system, developed in cooperation with the Indians. It has a range of approximately 300 kilometers.

In addition, Russian naval aviation has been given a primary mission to attack enemy ships. I think the Chief of Naval Operations wants to weigh in here.

Chief of Naval Operations: It would be very helpful with air defense of the Baltic States if we could put an Aegis cruiser into the Baltic Sea. I have to say, however, I would be reluctant to recommend that early in the fight. Not only would we encounter long-range Russian anti-ship missiles, but also the briefer is right, the Russians have plans and practice multi-axis air strikes on U.S. ships in the Baltic. The lack of air superiority is an obvious concern. We need to knock down the door to a certain extent before we try to enter.

The briefer continues: Extending the examination of the situation in the Baltic Sea, I will say a few words about the ports we might use to send NATO and U.S. troops. From what the Russians would have read in the open press, they would assume NATO had identified four ports to receive ground troops, three inside the Baltic and one outside the Baltic.

The Iskander missiles with conventional warheads could do considerable damage to the ports in Poland. If the Russians are serious about an attack and they think we are coming, we assess they would go to considerable effort to block the Baltic Sea to force us to use Hamburg as the primary port for reinforcements. As noted earlier, this would create serious logistical difficulties for NATO.

I would like to turn to the readiness of NATO allies to support the defense of the Baltics, recognizing that real involvement means both will as well as capabilities.

The Germans are meant to be a major player. A September 2014 article in *Der Spiegel* leaves us with the impression of a military with serious readiness problems. Only about 50 percent of German tanks would be operational. Germany has pledged 60 aircraft to NATO but does not have the mechanics to keep the aircraft operational.¹²

When the Baltic States entered NATO, the United Kingdom was a major player. When discussion of Baltic defense began, the United Kingdom was considered as having a major role. Continuous budgets cuts have seriously weakened our close partner. One can only conclude that its contributions would have serious limitations.

National Security Advisor: As we have gone through the briefing, I have mentioned some of the issues. We have a dilemma. We do not have any good options. I do not need to remind you that the crisis we are discussing here is not happening in isolation. We are involved in a very important fight against terrorist elements. We are trying to balance China's influence in Asia. We are doing humanitarian operations. Russia is cooperating with us on a number of Middle East issues.

We heard earlier about Russian thinking regarding nuclear weapons. Rather than have options included in the briefing, I wanted to frame this part of the problem myself. NATO continues to be connected to nuclear weapons as an element of its defense. We still have nuclear weapons in Europe. The written doctrine has not changed since the Cold War.

Although the skills to deliver nuclear weapons are still there, NATO consensus no longer exists. In this situation, we could tell the Russians that, if they were to violate the territorial integrity of any of the Baltic States, NATO would respond with nuclear weapons. It is hard to imagine any of the countries of the Alliance agreeing to that. We have not even been able to get them to agree to talk about NATO nuclear policy, let alone having discussions of when nuclear weapons might be used.

Compared to where we were during the Cold War, I cannot even imagine the threatening countries agreeing to the use of nuclear weapons in their defense. During the Cold War, the Germans understood that NATO might have to use nuclear weapons on German territory to stop Soviet advances. Would Lithuania agree to the use of a nuclear weapon on the Russian tank division as it begins its attacks to the North? I cannot imagine it would.

I want to mention an additional dimension of nuclear weapons that we need to consider. The Russians have put effort into developing small-yield weapons. They have “used” nuclear weapons that weigh less than 1 kiloton in exercises. The Hiroshima bomb was over 10 times heavier.¹³

Small-yield weapons present some difficult policy issues for us. I have asked the staff to run a model on the hypothetical effects of a 1-kiloton bomb on the NATO air base in Estonia (see figure 16-8).

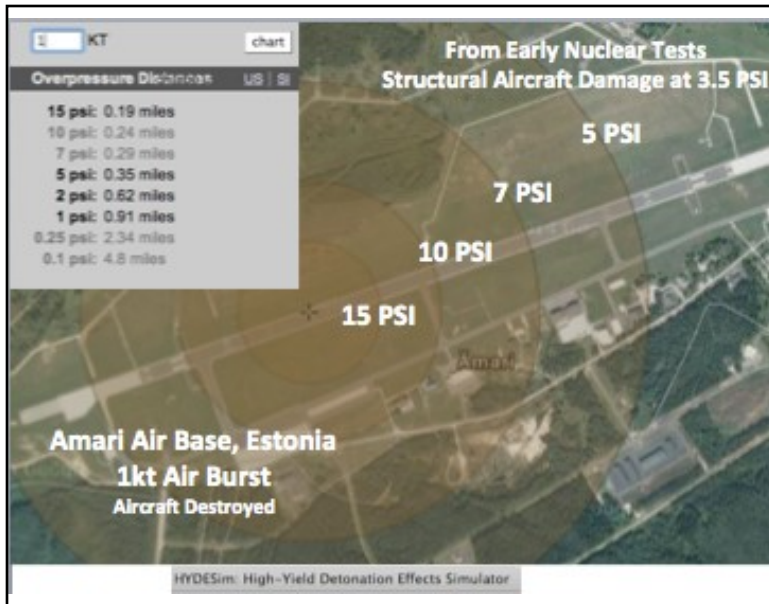


Figure 16-8. Nuclear Effects on Estonian Air Base

The limits of the effects stand out. The aircraft on the base would be destroyed at the line of about 3.5 pounds of overpressure. Structures on the base would be damaged. If the weapons were detonated at an altitude so the fireball does not reach the ground, even fallout would be limited. This would be a big policy problem. The nuclear threshold would have been crossed. How would we respond? NATO and the United States have just large-yield weapons. It would not seem to make sense to escalate.

With a small-yield weapon, the mental damage to the Alliance could be greater than the physical damage. Frankly, I think it would scare many of the nations. They signed up to an Alliance that has a first-use declaration, but they did not sign up for an Alliance in which nuclear weapons would actually be used.

If the battle were to remain conventional, there is a very real possibility this fight could escalate to other parts of the world. It could be hard to control. Russia has tested and can move Iskander missiles to islands in the Arctic. From these locations, Alaska could become a target. It has been since Pearl Harbor, HI, that we have had images of American soil under such a vast military attack (see figure 16-9).



Figure 16-9. Iskander Missile Tested During Exercise

Even if there were no fighting in the Black Sea, Russia could increase tensions to the point that they would draw NATO countries in the region from the defense of the Baltic States.

National Security Advisor: What are your questions to this point?

QUESTIONS AT THE END OF THE BRIEFING

Question

I am surprised at the conventional character of the Russian attack. We have heard so much about hybrid warfare. Why are you not projecting hybrid warfare?

Answer

There are numerous aspects of the answer to that question. In the first instance, the Russians exercise for large-scale warfare. For over 15 years, we have seen a large conventional operation against the Baltic States as part of their major exercises. They do not exercise hybrid warfare in their scenarios for this area.

As I pointed out early in the presentation, we have to assume the Russians are planning against what they believe would be the NATO reaction to an invasion. They are very careful about calculating the correlation of forces. What we have projected is based upon a nine-division reinforcing force.

Question

Has NATO ever done any exercise or war games exploring how to respond to small-yield nuclear weapons?

Answer

No. NATO has not wanted to talk about scenarios that involve the Russians.

Question

The Russian force seems large. Are we certain they would go with that much force?

Answer

We touched on some points in the briefing that are important to remember. This is the size of the force that they exercise in the scenarios that appear to be focused on the Baltics. The Russians have read what they will believe to be the size of the forces NATO would introduce—nine divisions. Russians work the correlation of forces carefully. They always want to have the correlation in their favor.

ASSESSMENT

National Security Advisor: We are going to take a 15-minute break. When we come back, please be ready to give your assessment of the situation. I see that as the first step to get to recommendations.

I will now give some final points. Although we are not here to evaluate past decisions, I have an uneasy feeling that the rush to expand NATO left us with the need for strategic reach we cannot achieve. It does not help us now, but we are confronting limitations of geography we underestimated. We underestimated the Russian will to reestablish its influence. We overestimated NATO's will to defend the Baltic States.

NATO has agreed to a rapid deploying force with the Baltic situation in mind. The rapid reaction force (four brigades) has been deployed. Turkey has volunteered to provide a brigade. We would not be much better off now if that force were available. It would be too little, too late.

The Baltic States have asked for the permanent deployment of a U.S. brigade there. Again, if that brigade were in place, I do not think we would be any better off. The situation would even be more difficult for us. The brigade could not stop the Russians, and without dominating the air situation, it would be very vulnerable.

I have heard talk from the Europeans of a U.S. tripwire. That is an interesting term to use since tripwires are connected to something explosive. During the Cold War, that tripwire equated to a large reinforcement of Europe and mobilization of European divisions combined with the threat of nuclear weapons. A tripwire for the Baltic States would be unconnected.

When we come back together, we have some serious questions to consider.

- Do we begin to send forces now?
- Do we want our aircraft on the bases in the Baltic States without shelters?
- Do we threaten the use of nuclear weapons?
- How do we respond if NATO does not embrace the defense of the Baltic States early?

While we are addressing these questions, we have to think through support of the American people. We have asked a lot of them over the past 15 years. They are going to ask why the Europeans are not doing more in their own defense. Are the American people ready for a conflict with Russia?

I do not want to get out in front too much, but I find myself wanting to say to the President, "Sir, I think we may be going a bridge too far."

ENDNOTES - CHAPTER 16

1. Cornelius Ryan, *A Bridge Too Far*, New York: Simon & Schuster, 1974.

2. The issue of indicators and warning is a very important one for NATO. I have not focused on them in this chapter. It would probably take the Russians 2 to 3 weeks to prepare for an invasion of the size depicted here. The 76th Air Assault Division and the SPETZNAZ brigade would be ready very quickly. The Russian timeline for the 4th Tank Division to move into Belarus seems to be 5 days based upon exercise timelines. Motor rifle brigades would take about 7 days to be ready for movement. When will it become clear that it is real and not an exercise?

3. The graphic illustrates the Iskander operating from Kaliningrad. Putin threatened a number of times that he would put them there. In a recent snap exercise, Iskanders were moved to Kaliningrad from St. Petersburg. After the exercise, they returned. Recent announcements have said the long-range plans are to put the missile system in Kaliningrad.

4. Nikolai N. Sokov, "Why Russia calls a limited nuclear strike 'de-escalation'," *Bulletin of the Atomic Scientists*, March 13, 2014, available from <https://thebulletin.org/2014/03/why-russia-calls-a-limited-nuclear-strike-de-escalation/>.

5. The exercise was Vostok 2010. The scenario and the nuclear weapon use are in Russian, Alexander Khranchikhin, "Inadequate 'East'," *Nezavisimaya gazeta*, July 23, 2010, available from http://nvo.ng.ru/eventsnvo/2010-07-23/1_vostok.html. From a Swedish friend:

The key word in the article is *yadernyi fugas* (nuclear landmine). My interpretation of this being connected to hybrid warfare may be a stretch. Another argument could be that it was a signal to the Chinese, and the 'use' was shoehorned into the scenario.

6. For the purposes of this chapter, I have assumed the Russians have picked up from leaked cables and from Polish press reports that NATO's plan for defense of the Baltic States is an annex to the plan for the defense of Poland. According to the

cables and the Polish press, the plan, Eagle Guardian, calls for nine divisions—five Polish divisions and four U.S./UK/German divisions.

7. The background on Soviet maneuver theory comes from Richard Simpkin, a Russian speaker who translated many of the works of Soviet military thinkers. His best description is in his book, Richard Simpkin, *Deep Battle: The Brainchild of Marshal Tukhachevsky*, London, UK: Brassey's, 1987.

8. The substance of the 2013 exercise comes from an excellent study by Pauli Järvenpää, *Zapad-2013: A View from Helsinki*, Washington, DC: The Jamestown Foundation, August 2014, available from https://jamestown.org/wp-content/uploads/2014/08/Zapad_2013_View_From_Helsinki_-_Full.pdf.

9. The 4th is being upgraded from a brigade to a division. In earlier exercises, it took 5 days for this unit to move from garrison positions near Moscow to exercise positions in Belarus. The Russians assessed this as being too long. This points to the short timeline the Russians have in mind for these operations and why going from an exercise into the fight makes sense for them.

10. As an indicator of the differences between the West's view of artillery and the Russian view, the United States has referred to artillery as the "King of Battle," obviously somewhat less than the "God of War."

11. Russian artillery has been made much more effective in the Ukraine through UAVs. The Ukrainian military has captured one made in Israel, IAI Military Aircraft Group. See Christian Borys and Yura Melko, "Ukrainian commander says captured drones are Russian - video," *The Guardian*, May 21, 2015, available from <http://www.theguardian.com/world/video/2015/may/21/ukrainian-commander-says-captured-drones-are-russian-video>.

12. See "Ramshackle Military at Odds with Global Aspirations," *Spiegel*, September 30, 2014, available from <http://www.spiegel.de/international/germany/ramshackle-army-at-odds-with-berlin-s-global-aspirations-a-994607.html>.

13. The Hiroshima bomb was estimated to be 12 to 15 kilotons.

CHAPTER 17. UKRAINE AND THE BLACK SEA REGION: THE RUSSIAN MILITARY PERSPECTIVE

James Sherr

The Russia-Ukraine conflict is not a crisis, but the centerpiece of a geopolitical and civilizational discord. Russia is waging a strategic counteroffensive against 25 years of perceived geopolitical and civilizational encirclement by the West. The Western instinct for compartmentalization and treating issues “on their merits” must be resisted vigorously if the parts and the whole of this counteroffensive are to be understood as the Russian state leadership and its defense and security establishments understand them. It should not be the West’s purpose, let alone duty, to adopt the Russian perspective, and it will only lose sight of its own interests if it does so. However, we will blunder and exhaust ourselves if we neglect Sun Tzu’s axiom, “If you know yourself but not the enemy, for every victory gained you will also suffer a defeat. If you know neither the enemy nor yourself, you will succumb in every battle.”¹

Therefore, this analysis of Russia’s policy in Ukraine begins with some overarching observations about the political and military assumptions that govern current Russian policy. It then examines the evolution of Russia’s aims and methods in Ukraine, and finally places this conflict in the context of the wider Black Sea region.

THE GENERAL CONTEXT

When Russia attacked Ukraine in 2014, it also attacked the security order of Europe. For over 20 years, it had manipulated and stretched the rules of

the Helsinki-based system that it also accused others of transgressing. Even its attack on Georgia, its draft European security treaty of 2008, and Dmitry Medvedev's call for recognition of Russia's "sphere of privileged interests" were, with increasing implausibility, made to fit within this elastic band. Only after Crimea's annexation did Russia explicitly call for the establishment of "new rules" built on the principles of the Yalta Conference.² On February 4, 2015, State Duma Chairman Sergey Naryshkin warned that the West should either relearn the lessons of Yalta or risk war.³

Underpinning this turn of events, and the scarcely concealed resentment that preceded it was a mounting sense of Western geopolitical encroachment, which was symbolized, but not confined to the enlargement of the North Atlantic Treaty Organization (NATO). Less visible to the West, despite prolific Russian commentary, was a perception of civilizational encroachment. This apprehension was both reflected in, and aggravated by, Vladimir Putin's reconstitution of the Russian system in a defensive and illiberal direction following his return to the presidency in 2012. By then, it was clear that two normative systems had emerged in Europe: the first based on rights and rules, the second on connections, clientelism, and the subordination of law to power. Even prior to the Eastern Partnership, Moscow concluded that European Union (EU) enlargement and NATO enlargement were parallel projects designed to isolate Russia from its "historical centers of influence," diminish its security, and undermine its internal order. It is fateful that just as the first wave of NATO enlargement coincided with the Kosovo conflict, the first wave of EU enlargement coincided with Ukraine's Orange Revolution.

Thus, alongside a return to Yalta principles, Russia, with less emphasis but equal conviction, also sought the restoration of “historical Russia,” as Putin set out to the Federal Assembly on Crimea’s “reunification” with Russia on March 18, 2014.

Our nation . . . unequivocally supported the sincere, unstoppable desire of the Germans for national unity. . . . I expect that the citizens of Germany will also support the aspiration of the Russians, of historical Russia, to restore unity.⁴

The Novorossiia project of winter-spring 2014 (the regathering of Ukrainian lands initially “gathered” by Catherine II) is the most forcible articulation of this aspiration to date, but the aspiration is not confined to Ukraine. Sergey Lavrov’s comment at the 2014 Valdai Discussion Club, Moscow, Russia, that “Moldova and the Baltic States should consider events in Ukraine and draw conclusions” is but one of many indications that Russia does not equate the “historical West” with the political West, as defined by the borders of NATO and the EU.⁵ Unsettling as these statements are, they did not arise from nowhere. From the start of Putin’s first presidential term, they have been articulated, sometimes in muffled, sometimes in blatant form, in foreign policy concepts and “reviews,” congresses of “compatriots” abroad, the “Russian World” concept and presidential declarations and articles emphasizing the preeminence of “historically conditioned relations” over state sovereignty, citizenship, internationally recognized borders, and the “notorious principle of national self-determination.”⁶

These political perspectives are reinforced by the geopolitical determinism of the military establishment. Factors that frequently offset one another in a Western

threat assessment—capability, interest, and intention—are invariably compounded in Russia based on worst-case assumptions. Threat is defined in terms of proximity, and security is equated with control of space (irrespective of the views of those who inhabit it) and uncontested defense perimeters.⁷ The retention of Soviet borders as the baseline of proximity invariably enlarges the threat perceived. (During the Kosovo conflict, it was customary to refer to Yugoslavia as a country “in the vicinity of Russia’s borders,” despite the fact that the nearest Russian city, Novorossiysk, was 1,000 kilometers [km] away.)

This determinism is not contradicted by the equal importance assigned to the “political factor.” In the Russian military lexicon, this term refers neither to politics in the liberal democratic sense of the word nor to the declared intentions of foreign states. It refers to their character. Thus, when National Security Council Secretary Nikolai Patrushev claims that the United States has pursued an “undeviating course [of global hegemony] over many decades,” he is not describing the policy of this administration or that, but something “systemic.”⁸ For the Russian military establishment, the “danger” from NATO is also systemic.⁹ It was founded as an anti-Russian military alliance and will remain one until it is subsumed either by a “pan-European security structure,” or it invites Russia to the top table.¹⁰ Because NATO already was deemed to be anti-Russian, its enlargement proved (tautologically) that it was aggressive in character. The accusation at the height of the Kosovo conflict that “today they are bombing Yugoslavia but aiming at Russia” was both an outlandish charge and a palpable fear.¹¹

Today, this emphasis on the political factor stands in marked contrast to the tendency in much of the West

to emphasize economic rationality in its treatment of Russia. Russia's construction of a system of state mobilization might be economically inefficient, even damaging, but that does not mean it is not taking place.¹² The fact that only 1 member in the 30-strong Russian Federation Security Council has major economic responsibilities (as opposed to 4 in the 19-member U.S. National Security Council [USNSC]) is not a sign of the Kremlin's stupidity but its priorities.¹³ Putin is hardly unaware of the huge discrepancy of economic power between Russia and the West in the current conflict. However, how much of the West's economic power is in play? Russia has managed to mobilize its far more limited power and has shown a willingness to assume risks commensurate with the interests at stake. Wars are not decided by gross domestic product (GDP) ratios, but by the conversion of national attributes (moral and material) into useable power. Today, Russia believes that its moral attributes—its force of will and moral vigor, its *passionar'nost'*—far surpass those of the West, which, in the case of Europe, is bound eventually to return to the path of cooperation with Russia.

Russians also treat regions and regional problems as interlinked, or, as Gorbachev said when he launched "new political thinking," as "interconnected, interdependent, and integral."¹⁴ They are scarcely alone in this. They are very well attuned to the geostrategic implications of this general truth. In contrast to those in the West who, after the initial drama of the "5-Day War," satisfied themselves that the Russo-Georgian conflict was the product of specific circumstances, Sergey Markedonov, an independent as well as an authoritative expert, argued the opposite. Not only did the war spring from a complex of domestic and regional imperatives, but it also made the South Caucasus "the

focal point of international relations;” created a “precedent to change borders;” and, continued to have repercussions across Eurasia, affecting not only the Central Asian states, but Iran and Turkey as well.¹⁵ Yet even Markedonov failed to note that Russia’s employment of the Black Sea Fleet in the conflict also demonstrated Crimea’s importance as a rear area of power projection into conflict zones adjacent to the Black Sea. The war in Ukraine has enlarged its importance, as we can witness in Syria.

UKRAINE: BREAKOUT AND CONFINEMENT

Buffer zones, client states, and the limited sovereignty of neighbors became endemic to Russian geopolitical thinking in imperial times, and these building blocks of security and influence have retained their place in the post-Soviet era. However, the conviction that Ukraine must be “with” Russia is based on more than geopolitical interest. It is a matter of identity and self-definition, a perceived precondition for Eurasian economic integration and a still highly significant (if now diminishing) factor in European energy markets. It also is central to Putin’s claim that the “Russian world” exceeds “Russia’s geographic boundaries and even the boundaries of the Russian ethnos.”¹⁶

In this matrix, the military perception of Ukraine has a syntax of its own. Russia’s military leadership treated Crimea as a zone of potential conflict from the moment the Union of Soviet Socialist Republics (USSR) was dissolved. Even after the most likely and acute *casus belli* for such a conflict, Ukraine’s nuclear status, had been resolved, Ukraine firmly opposed three prerequisites to good relations as Moscow defined them: joint defense of external Commonwealth of Independent

States (CIS) borders, recognition of the “special status of Sevastopol,” and “a single programme of defence in the Caspian . . . Black Sea region.”¹⁷

NATO’s establishment of Partnership for Peace in 1994 and then, in 1997 a Distinctive Partnership with Ukraine injected a qualitatively new dimension to this dynamic of tension. NATO’s burgeoning relationship with Ukraine did not develop, as the Russians say, “for the sake of their blue eyes.” Whereas Ukraine’s military establishment in the 1990s drew a rigorous distinction between drawing closer to NATO and joining it, for the inhabitants of Frunze Embankment, the first looked like the precursor to the second. In this presentiment, they felt vindicated by the first round of NATO enlargement, which coincided with the Kosovo conflict. The Partnership for Peace, which many allies viewed initially as an alternative to enlargement, had effectively become the preparatory school for membership. To the Russian military, it could not have been coincidental that 1997 also was the first year of the U.S.-led “Sea Breeze” exercises in the Black Sea, climaxing with an amphibious landing in Crimea. In conditions of chronic weakness, Boris Yeltsin resolved that the only realistic course open to Russia was to remove sources of tension with Ukraine.¹⁸ The results were the Treaty of Friendship, Cooperation and Partnership between the Russian Federation and Ukraine and the Black Sea Fleet Accords of May 1997.

By 2008, under a new state leadership, the benchmark of realism had shifted. At one level, Russia felt more imperiled. Two months after recognizing the independence of Kosovo (which Russia saw as flagrant defiance of the United Nations Security Council), NATO declared at its Bucharest summit that Georgia and Ukraine “will become members of NATO.”¹⁹ To

NATO allies, these words were designed to extricate them from demands regarding the Membership Action Plan (MAP), reassure the countries concerned, and postpone the issue of membership indefinitely. To Russia, they amounted to a commitment by NATO to complete the process it had started.

Yet 1 year after Putin's unsettling speech at the 2007 Munich Security Conference, Russia had recovered its self-confidence. It also had acquired usable power. It is an open secret that the launch of the 5-Day War was a blow against the United States more than against Mikheil Saakashvili, whom President Medvedev effectively labeled a U.S. proxy.²⁰ In June 2009, we summed up the lessons of the Russia-Georgia war in the following terms:

- War is possible.
- The former Soviet borders are no longer sacrosanct.
- Questions long regarded as settled (e.g., the status of Crimea and Sevastopol) can be reopened at any moment.
- "Civilizational" and "humanitarian" factors (e.g., the status of the Russian diaspora) can constitute a *casus belli*.
- Where there is no Article 5, there is no collective defense.²¹

Any veracity contained in this forecast was obstructed by Viktor Yanukovych's election in February 2010. The new President moved swiftly to address, not to say pre-empt, Ukraine's two most acute sources of friction with Russia: the Black Sea Fleet and the relationship with NATO, membership of which had been a top priority of Viktor Yushchenko's administration. At the Kharkiv summit of April 21, Yanukovych and

Medvedev agreed to extend the fleet's lease until 2042. In July, the Verkhovna Rada (Ukraine Parliament) adopted a law on Ukraine's "non-bloc" status. Having made these core concessions, Yanukovich concluded that Russia would not obstruct Ukraine's path to a closer relationship with the EU. For reasons to which we already have alluded, he could not have been more mistaken. Moscow's mounting pressures against the EU Association Agreement set the stage for Yanukovich's capitulation, Ukraine's "Revolution of Dignity," and Yanukovich's flight from Kyiv.

The initial stage of Russia's military operation in Ukraine stands as an exemplar of how planning and improvisation can be combined to decisive effect. For years, Russian penetration of Ukraine's echelons of power had been a fact of life. So, too, was its diverse and extensive but "multi-voiced" intelligence presence. The Black Sea Fleet agreements preserved and effectively legitimized the presence of 10 Russian intelligence and counterintelligence detachments subordinated respectively to the GRU (Main Intelligence Directorate of the General Staff) and the *Federal'naya Sluzhba Bezopasnosti* (FSB or Federal Security Service) which, in a continuation of Soviet practice, is responsible for military as well as civilian counterintelligence. Russia's Federal Border Service (which became the Border Service of the FSB in 2003) has also undertaken covert tasks against Ukraine. In contrast, the presence of Russia's Foreign Intelligence Service (SVR) is comparatively minute. From the security and intelligence point of view, as in many other domains, Ukraine is regarded as an extension of the homeland, rather than a foreign country.

From the time Putin became acting-President in December 1999, this covert presence, active and

dormant, acquired coherence, direction, and resources. The custodians of Ukraine's defense and security system (as well as its foreign policy) felt the tug of Putin's power before many in Russia's political establishment did.²² Ten years after Putin's ascent to the presidency, Viktor Yanukovich cleared the path to a far deeper level of penetration and influence. On April 2, 2010, less than 2 months after his inauguration, he dissolved the 6 specialized structures coordinating NATO-Ukraine integration and dismissed 200 expert civil servants.²³ Then on May 19, after summarily dismissing NATO's intelligence adviser, the new Chairman of the Security Service of Ukraine (SBU) concluded an agreement with the FSB, designed to establish a full spectrum of cooperation including industrial counterintelligence and the return of the military counterintelligence officers to Crimea who had been expelled by the previous SBU chairman.²⁴ From then until his demise, Yanukovich proceeded to hollow out much of the state for commercial and "family" reasons, with and without Russian help. Probably without his knowledge, Russia had been recruiting (and supplementing the salaries of) law enforcement officers in Donbass months before the "putschists" came to power in Kyiv.²⁵ Ukraine's machinery of state had been so severely compromised that, during the final days of Yanukovich's tenure, Russian-directed operatives were able to erase codes, undermine the integrity of communications systems, and destroy the records of the SBU. By February 23, 2014, the day Yanukovich fled Kyiv, Crimea was ripe for the taking.

The fact is, had Yanukovich remained in office, Russia would have had no reason to occupy Crimea. Between November 12, 2013 (the date Putin bullied him into abandoning the EU Association Agreement)

and December 17, 2013 (the date he accepted all of Putin's terms), the Kremlin acted as if there was no internal challenge that a determined Ukrainian President could not crush. The triumphant mood of the Russian delegation at the Moscow talks on December 17 betrayed no hint of the possibility that 9 weeks later, Russia would find itself with no influence in Kyiv at all. Although the SBU was taking orders directly from Russian representatives by December, the available evidence suggests that preliminary authorization to seize Crimea was given only on January 24, the day the Russian Federation (RF) Security Council strengthened the powers of the General Staff.²⁶ The following day, Chief of the Russian General Staff (CGS) Army General Valery Gerasimov announced that an all-day conference of the General Staff Academy had worked out a "complex of measures required to transfer the country to a wartime footing."²⁷ He also declared that the "internationalization" of the "armed struggle" in Ukraine had already begun under Western auspices. When Yanukovich met Putin in Sochi on February 4, he was given an ultimatum: crush the rebellion, or it will be crushed by others.

Given its intellectual premises, Russia's political and military establishments had every reason to fear that the insurgent "Banderist clique" would reverse the Kharkiv accords and chart a path to NATO membership. Over a year after the Donbass operation, Lieutenant General Leonid Reshetnikov, Director of the presidential administration's analytical center, admitted that the purpose of Ukraine's "federalization" was not to protect Russia's compatriots, but Russia itself.

From Lugansk or Kharkov, tactical cruise missiles can reach beyond the Urals, where our primary nuclear deterrent is located. . . . [W]ith 100 percent certainty, they can destroy silo or mobile-based ballistic missiles in their

flight trajectory. . . . At present, this region is inaccessible to them from Poland, Turkey or Southeast Asia.²⁸

In making this assertion, Reshetnikov confirms three points that Russia's diplomats have obfuscated. First, he confirms that NATO's existing ballistic missile defense (BMD) programs pose no such threat. Second, he confirms that Russia's model of "federalization" would deny Kyiv the prerogatives enjoyed by other federal governments: foreign policy, national security, and defense. Third, his reference to Kharkiv (which lies outside the so-called Donetsk and Lugansk People's Republics) suggests that autonomy for the latter would not be enough to satisfy Moscow.

Russia's greatest accomplishment in Ukraine has been its ability to unbalance its opponents. However, its mistakes have been strategic in nature. Although the Kremlin has taken the initiative at almost every stage of the conflict, almost every initiative has been the sequel to previous miscalculations and misjudgments. The conviction that Ukraine's identity is artificial and that its independent statehood is an aberration has dogged every Russian policy and maneuver since Russia recognized Ukraine's juridical independence ("*nezavisimost'*") at Belovezhskaya Pushcha on December 8, 1991. In doing so, it never intended, then or since, to recognize its freedom to chart its own course, its "ability to stand" (*samostoyatel'nost'*) as a legitimate norm or a practical possibility. To Ukraine's national sentiments and its civil society, the Kremlin has been blind and deaf. It failed to anticipate the first Maidan; it failed to anticipate the second; and, when they did occur, it concluded that U.S. special services had instigated both.²⁹

For these reasons, Russia poorly gauged the extent of its potential support in eastern Ukraine when “Russian tourists” infiltrated Donbass in the wake of its operation in Crimea.³⁰ In the embittered words of GRU Colonel Igor Girkin (also known as Strelkov), first self-styled Minister of Defense of the so-called Donetsk People’s Republic, “if our detachment hadn’t crossed the border, everything in short [i.e., the resistance] would have collapsed.”³¹ Three months into the campaign, he spoke with depressing candor:

I admit that I never expected that in the entire oblast, one cannot find even a thousand men ready to risk their lives even for their own city. . . . Amongst the volunteers, the majority are men over 40 who acquired their upbringing in the USSR. But where are they, the young, healthy lads? Perhaps in the brigades of gangsters who, enjoying the absence of authority, have thrown themselves into plunder and pillage in all cities and right across the oblast.³²

Russia also failed to anticipate the reconstitution of the Ukrainian state and the rallying of the country. The offensive of May-July 2014 regained control of 23 of the 36 districts (*rayoniy*) seized by the Russian-led forces. The devastating counteroffensive by Russian battle groups in September 2014 confirmed Russia’s failure to bring Ukraine to submission by so-called hybrid war. The territorial limits of the counteroffensive also confirmed that, for the near future at least, the Novorossiia project was over.

What most have failed to see is that the principal target of this offensive (and its far more devastating sequel in January 2015) was not Ukraine, but the West. By means of these offensives, Russia aimed to demonstrate:

- Its military dominance and capacity to annihilate Ukraine's forces at will.
- Its determination to use any means necessary to block unilateral revision of the post-February 2014 status quo.
- Its capacity to inflict economic damage on Ukraine and deny it the baseline needed for political sustainability, fiscal solvency, and investor confidence.
- The failure of the West's "punitive" sanctions policy.
- The folly of "arming" Ukraine.
- The impossibility of solving the conflict at the expense of Russia's interests.

The accords that followed (Minsk-I on September 5, 2014, and Minsk-II on February 12, 2015)³³ were a direct consequence of what Russian military scientists call *ustrashenie*: "a threat or demonstration of force with the aim of securing political capitulation."³⁴ Neither was the result of equitable agreement. Minsk-II in particular marked a retreat from core Western objectives enunciated in early 2014: upholding Ukraine's sovereignty and territorial integrity. The negotiations were launched without proper consultation with allies, without Western military input and with precipitate haste, entirely out of keeping with the policies of Angela Merkel, who for months had been a stalwart advocate of transatlantic unity and firmness. To Merkel and others who believed there were "no military solutions" to the conflict, Russia's offensive of January 21 was a shock. Not only did Russia launch a devastating attack with general-purpose forces, it introduced munitions, weapons systems, and electronic warfare capabilities that were new to the conflict. Its grapevine also

spread rumors of worse: fuel-air explosives and other unconventional devices, as well as Kremlin deliberations to escalate the conflict to the nuclear level.³⁵ Thus, Minsk-II was also a triumph of information warfare. It was not a “military solution” but a model example of how to secure political objectives by force of arms.³⁶

Since that point, Western policy has become synonymous with sanctions and implementation of Minsk, with which sanctions now are linked. Yet the accords are a mosaic of precise, ambiguous, and contradictory provisions. In the absence of a clear interpretation of obligations subject to interpretation and a clear response to violations of obligations that are not, Western policy has no more force than a catechism. Moreover, what is the ultimate Western objective? In 2014, it was to bring Russia back into compliance with international law and ensure, in Merkel’s words, that “old thinking in spheres of influence not succeed.”³⁷ Nothing has been stated since with such clarity.

During this time, Russia’s strategic aim has been unwavering: to secure Ukraine’s neutralization *de jure* by means of Western acquiescence to a model of “federalization” that would deprive it of the prerogatives of a sovereign state.³⁸ It has used Minsk-II as an instrument to advance this aim by emphasizing those provisions that are consistent with it and, thus far with impunity, defying those that are not.³⁹ On January 15, 2016, this defiance became official when Vladislav Surkov, in his capacity as presidential representative, informed then-U.S. Assistant Secretary of State Victoria Nuland that Russia would, at most, countenance a cosmetic return of Ukraine’s eastern border to “Ukrainian” borders guards whose composition would be determined by the Donetsk People’s Republic (DNR)/Luhansk People’s Republic (LNR) leadership.⁴⁰ Russia’s

perseverance in its course is demonstrated less by its maintenance of the so-called DNR and LNR (which, amounting to 4 percent of Ukraine's territory, are miserable and waning assets) than its repeated generation of war scares, punctuated by periods of "neither war nor peace." Its latest *démarche*, accompanied by a mobilization of forces in Crimea and the Southern Military District, is intended to secure a revised "Normandy" format, excluding Ukraine's participation.⁴¹

THE ART OF WAR

It would be difficult to find a time in recent Russian or Soviet history where the political and military instruments of policy have been as tightly interwoven as they are at present. On one level, this integration reflects the model of the state, its priorities, and the efforts taken in recent years to "mobilize" the institutions and capacities relevant to the maintenance and projection of national power.⁴² Today, not even the Central Bank is spared "snap inspections for wartime readiness."⁴³ On the other hand, it reflects a predisposition for purposeful behavior. One can argue to exhaustion about whether Putin and his inner circle are strategists, mere tacticians, or neither. What they display is a Leninist grasp of the unity of words, action, and organization. That Russia might be ruined by the current scheme of priorities does not detract from the ability of the state leadership to succeed in their own terms: to enhance Russia's global importance, impose risk and hardship on others, and destabilize an international security system they regard as vulnerable.

Russia's potential to use its limited power to these ends is only enhanced when its opponents and pro forma "partners" are ignorant of its methodology of

waging war and peace. For all his professed “conservatism,” Putin has presided over a revival of Leninist disciplines regarding the relationship between war, politics, and what the Soviets called “ideological struggle.” The latter is scarcely irrelevant to a second preoccupation of the Putin era: the “information space” in peace and war.

Although much of this orthodoxy is being revised and updated, understanding of Russian thinking is not advanced when every practice newly recognized in the West is termed “new.” Much confusion about “who started what” in Ukraine would have been dispelled by a re-acquaintance with the “anatomy of Communist takeovers” and attentiveness to the “initial period of war,” as the Russian military establishment defines it. As noted earlier, between the time the Russian Federation Security Council (RFSC) declared the Ukraine conflict “internationalized” and the time Yanukovich left the country, actions were taken that ruptured command-and-control as well as the entire national security system of Ukraine. Yet to this day, many would prefer to blame Crimea’s collapse on the weakness of Ukrainian statehood, rather than the methodical crippling of the Ukrainian state.

In its 2011 treatise on the information space, Russia’s Ministry of Defence stated that information war is a form of “confrontation/antagonism (*protivoborstvo*) between two or more states” that encompasses:

undermining the political, economic and social system, and massive indoctrination of the population for destabilizing the society and the state, and also forcing the state to make decisions in the interests of the opposing party.⁴⁴

From this definition, it follows that neither the means nor the ends of this “war” are exclusively military. It encompasses much of what the Soviet intelligence service (KGB) traditionally termed “active measures”: efforts aimed at “discrediting and weakening governmental opponents . . . and distort[ing] the target’s perceptions of reality.”⁴⁵ Since the Ukraine conflict began, information warfare, rather than active measures has moved to the fore. Its gambit extends to every area where Russia finds itself in antagonism or confrontation with other parties.

In the context of what Russia calls “non-linear” war (and the West “hybrid war”), this only stands to reason. A prime characteristic, indeed the purpose of such a war, is to erode customary distinctions between political and military, civil and interstate conflict, and peace and war. In these aims, Russia’s purposes are advanced by the modalities of the “network state” that has been established inside Russia and which, by design and default, has blurred the distinction between “state” and “private” and established a sub rosa web of patron-client relationships inside the country and beyond it.⁴⁶ Thus, the participants in the Donbass war are not only serving officers of GRU and FSB but also retired servicemen and deserters; the private security forces of oligarchs (Ukrainian and Russian); Cossack, Chechen, and South Ossetian fighters; adventurers and criminals. For the same reason, finance comes not only from the coffers of the Russian state but also nominally private banks and businesses.

Fundamentally, there is nothing new in this. The Russian Empire was consolidated not only by a “vertical” of authority but also by accommodations with client societies and by semi-autonomous paramilitary structures, of which the Cossacks are the most

celebrated. Like today's war in Ukraine, irregular wars on the fringes of the empire were prosecuted by informal networks as much as top-down military structures. They were untidy and adaptable, covert and vicious. Such wars were as much a testimony to ingenuity as to weakness. After the Bolshevik Revolution, these ingredients and techniques became staples to the GRU, the Chief Intelligence Directorate of the General Staff, which became the lead agency responsible for operations in Ukraine in early 2014.

Nevertheless, two points about the present context need to be emphasized. First, as Stephen Covington notes, the Russian model of hybrid war does not stand in isolation. It is but one ingredient of "an approach to conflict in peace, crisis, and war that couples large-scale conventional and nuclear forces to the application of non-attributable, ambiguous means of destabilization."⁴⁷ Second, hybrid war is no more destabilizing in principle than other forms of "military cunning" (*voennaya khitrost*), which is "designed to throw the enemy into confusion regarding the condition, location and character of military activity."⁴⁸ Military cunning is a theoretical and practical dimension of military art applying "to wars of all times and peoples," and it has been an object of academic study in Russia since the time of Suvorov. Some of its offshoots include the following.

Maskirovka, a narrower and more familiar concept than military cunning, has been an object of military-academic study in Russia since 1904, when a military college (*uchilishche*) on the subject was founded. *Maskirovka* refers to the complex measures devised to confuse the enemy regarding the "presence and disposition of forces, their condition, readiness, actions and plans."⁴⁹ During crises in the former Warsaw Pact,

the 2008 Georgia war, and the current Ukraine conflict, the Russians regularly have displayed their talent for making invasions look like exercises and exercises look like invasions. The most recent example was the war scare engineered in response to the bogus “provocation” by Ukraine against Russian forces in Crimea on August 7-8, 2016. For more than 2 weeks, threats of reprisals by the Russian state leadership, localized states of emergency, redeployments, and heightened readiness levels in the Southern Military District raised the specter of a fresh Russian offensive. The steady escalation of fighting in Donbass, the ongoing resupply of forces in Syria, and the imminence of exercise Kavkaz-2016 dropped veils of ambiguity over the meaning of what was taking place. Fortunately, Western defense establishments and a few independent experts concluded that a fresh offensive was unlikely. More likely, the purpose was to provoke Kyiv into foolish acts and scare the West into concessions on Ukraine at the Hangzhou G20 summit, a gambit that, on this occasion, did not succeed.⁵⁰ If the Russians wish to strike in Ukraine, the odds are that they will do so after a war scare, rather than in the midst of one.

Diversion (*diversiya*) serves a different, albeit complementary purpose: to “divert the attention of the enemy and divide his forces.” In the Soviet period, it referred primarily to actions carried out in the enemy rear, but now it can refer to any military activity “far from the theatre of war” designed to distract the enemy from one’s own main effort.⁵¹ In hybrid war conditions, the diversionary zone can even be the Russian rear. In spring 2014, Russia’s deployment of battle groups on Ukraine’s borders served to focus Western minds on the hypothetical of all-out invasion and divert attention from the real war occurring inside the country.

Diversion can also aim to alter the opponent's political behavior as much as its military behavior. In the weeks before Russia's Syria campaign got underway, Western positions toughened regarding the Ukraine conflict. In October 2015, a tough *démarche* by Angela Merkel and François Hollande secured a general (albeit not complete) ceasefire in Donbass. As Russia's Syria operation got underway in earnest, fighting in Donbass resumed. Two days after the Paris terrorist attacks of November 25, fighting sharply escalated. In the Western media and political space, these were nonevents.

Despite the clearest conditionality and warnings issued weeks before, Paris and Berlin limited their response to protests. The Paris attacks (like the Twin Towers attacks of 2001) illustrate a further point. A diversionary attack can be a gift (anticipated or unanticipated) from a third force targeting the same opponent. From the Russian standpoint, the issue that matters is whether the gift can be exploited in a timely manner to deflect the opponent and advance the main effort.

Reflexive Control (*refleksivnoe upravlenie*), the key objective of information war cited earlier—"forcing the state to make decisions in the interests of the opposing party"—captures the essence of reflexive control, but with one careless imprecision. The leading Western authority on the subject, Timothy Thomas, rightly defines it as "a means of conveying to a partner or an opponent specially prepared information to incline him to **voluntarily** make the predetermined decision [emphasis added]." ⁵² Reflexive control is an older concept than information warfare, as well as a scientific and theoretical discipline that has engaged experts across a number of disciplines. Leading Russian authorities,

not all of them military, ascribe to it a significance well beyond the domain of combat (e.g., Major General N. I. Turko, who views it as a method for achieving geopolitical superiority and securing favorable outcomes in arms limitation negotiations). Even in the Yeltsin era, reflexive control was employed as a tool in internal decision making.

Success in this enterprise rests on a correct understanding of the target's "filter"—his "stable set of concepts, knowledge, ideas, and experience"—and effective exploitation of the weak link inside it.⁵³ In the case of President Mikheil Saakashvili of Georgia, this was his ego that Russia manipulated to stunning effect in the weeks before hostilities commenced.⁵⁴ While Putin primed the mechanism for war in 2008, he was assiduous in ensuring that Saakashvili started it. Similarly, by the time of Russia's January 2015 offensive in Ukraine (and probably well before), the Kremlin understood that for Merkel, as for much of the German polity, the prospect of a "military solution" was unthinkable as well as illegitimate. The offensive and the threat mongering surrounding it unsettled her personally and shattered the resolve of her political coalition, which had been firm up to that point.

Reconnaissance/intelligence by combat (*razvedka boem*), the "acquisition of information about the enemy by offensive action of special purpose subunits," has moved beyond these traditional parameters in current zones of operations.⁵⁵ The short battle at Marinka, Donetsk Oblast in June 2015, the heaviest fighting since Minsk-II, is an example of *razvedka boem* in the conventional sense. On June 3, over 1,000 DNR/Russian forces backed by tanks occupied 70 percent of the town and then withdrew in 24 hours following a Ukrainian counter-attack. The counter-attack provided useful

information about the speed with which Ukrainian heavy weapons could be moved from the Minsk demarcation line to the battle area, and in the view of Ukrainian experts, it was provoked for this very purpose. The confluence of the Syria operation, the Paris attacks, and the escalation of fighting in Donbass in autumn 2015 was most likely an exercise in *razvedka boem* as well as diversion. Not only during that episode but also on multiple occasions since the Minsk accords were signed, Russia clearly has been testing the limits of Western tolerance in its operations in Donbass. Repeated references by Western governments to the “ceasefire,” when in fact there has been none, have shown a degree of tolerance that is disturbingly elastic, though the Kremlin can also discern that it is not unlimited.

A more ambitious application of *razvedka boem* from both the political and strategic aspect emerges in another episode. On July 10, 2015, Russian troops moved the unrecognized South Ossetia border 1.5 km further into Georgian territory, in the process incorporating 1 km of the Baku-Supsa oil pipeline onto South Ossetian territory. The timing of this step to coincide with a well-advertised NATO-Georgia military exercise, “Agile Spirit,” probably had more than one purpose. The movement might have been planned to display the impotence of NATO and the perils of future Georgian membership, to illustrate the unsoundness of the West’s pipeline diversification policy, and to warn the West about the kinds of actions it might undertake if “extreme” sanctions were imposed. At the most basic level, the incursion probed NATO’s responsiveness and intentions. Although the EU (which has responsibility for monitoring the border) issued a statement of condemnation, there was no public response from

NATO, and the exercise ended on schedule.⁵⁶ During the Cold War, when the borders of NATO routinely were subjected to probing and provocation, NATO recognized that deterrence required a proportionate response in each case. Although Georgia is not a member of NATO, it is an active and visible partner enjoying an intensified dialogue on membership. It should not be assumed that NATO's failure to respond to incremental violations of its territory would not lead Moscow, errantly or otherwise, to draw wider conclusions about how NATO might respond to provocations against NATO allies in an initial period of war.

A REGIONAL SPRINGBOARD

Over 2 years after the event, Russia's annexation of Crimea is treated in the West as reprehensible, rather than insupportable. Western governments view this development as irreversible in the foreseeable future but also believe that the annexation must never be recognized as a permanent, let alone legitimate fact. Yet outside military circles, few in the West have noticed that Crimea has become the center of gravity for Russia's broader policy in the greater Black Sea region.

On March 18, 2014, the date that the hitherto Ukrainian Autonomous Republic of Crimea "acceded" to the Russian Federation, it simultaneously was incorporated into the Russian Southern Military District as two distinct juridical entities: the newly designed Crimean Federal District and the Federal City of Sevastopol (a status shared only by Moscow and St. Petersburg).⁵⁷ The confluence of these developments and the restoration of Sevastopol, the historic base of the Black Sea Fleet, as a separate jurisdiction testify to the military priority that now dominates nearly every aspect of

Crimean affairs. The annexation was followed swiftly by an augmentation of existing forces as well as the introduction of new components (e.g., air defense, Airborne Troops [VDV], and special purpose forces). The Syria campaign has generated a broader augmentation, not excluding, as of January 2016, the deployment of ground forces “in case of necessity.”⁵⁸ While Yanukovich might have been pressed to accept some of these changes, they well exceed the provisions of the 2010 Kharkiv agreements and are flatly incompatible with the 1997 Black Sea Fleet accords, which Russia in 2014 declared null and void. On July 28, 2016, the Crimean Federal District was abolished as a separate entity and merged into the Southern Federal District.

In the broadly convergent assessments of NATO and the Ukrainian Ministry of Defence, Crimea’s militarization serves two complementary sets of objectives. Within the Black Sea region, they are to establish an anti-access/area denial (A2/AD) zone; counter-balance NATO’s anti-ballistic missile (ABM) facility at Deveselu, Romania; put forward-deployed U.S. units at Kogalniceanu Air Base at risk; provide a platform for pressure and future operations in southern Ukraine and Georgia; and, solidify Russia’s position as the pre-eminent actor in the south Caucasus.⁵⁹ In the wider region, they are to secure the permanent presence of the Russian Navy in the eastern Mediterranean; establish military supremacy in (and an A2/AD zone over) Syria; make Russian power convincingly felt in Turkey; and, achieve tighter integration with other military and naval assets in the Caspian, Iran, and the Mediterranean.

Many of these ambitions predate Crimea’s occupation. Russia’s post-Cold War efforts to secure naval access to ports across the Mediterranean date from no

later than the Eurozone crisis. "Since 2011, at least 58 Russian Navy ships have called into the Spanish port [of Ceuta], including destroyers, frigates, amphibious assault ships and even an attack submarine."⁶⁰ These endeavors have been appreciably abetted by "rebalancing U.S. military capability" to the Asia-Pacific, the steady decline of the allied naval presence, and new NATO commitments such as Operation OCEAN SHIELD.⁶¹ In February 2013, following Russia's largest naval maneuvers in the Mediterranean since the Cold War, Minister of Defence Sergei Shoigu stated that it is the "south-western direction in which the most critical threats against our national interests are concentrated."⁶² The following month, he announced that a permanent Mediterranean naval task force (*postoyannaya gruppа morskogo flota*) would be established.⁶³ Crimea's annexation and the wider buildup in the Southern Military District have given momentum and teeth to these efforts (e.g., the Cyprus naval access accord), which damage NATO and EU unity even as the facade is preserved.⁶⁴

In the Near and Middle East, Russia's unflinching support for the regime of Bashar al-Assad has solidified a reputation it already had acquired as a state that will not be deflected from its interests, that is tough and consistent, professional and non-ideological in its approach, and "pragmatically" disposed to cooperate with any country and its worst enemy. Yet well into the first decade of this century, Syria (and Iran) were buffers more than bastions against Western hegemonism and U.S. hubris. President Barack Obama's "pivot to Asia," his relative detachment from the region, and his abhorrence of risk and entanglement have changed the picture, as have the souring of Western hopes about the Arab Spring and Assad's demise.

Nevertheless, before March 2014, Russia would have been hard put to mount, let alone sustain, a major military intervention in Syria. Russia has no naval bases in the Mediterranean, only facilities and access, much of it provisional. At Tartus, Russia leases facilities that are now undergoing expansion, but it is not a naval base. It is ill-equipped to service and support the Navy's larger vessels, notably the Moskva and Varyag guided-missile cruisers, which secure Syria's air defenses from the maritime direction and complement its growing capability at its air base at Hmeimim.⁶⁵ Crimea is not only the home of the Black Sea Fleet, but along with the rest of the Southern Military District, a supply and reinforcement hub for Russia's Syria operation.

Turkey also is a center of gravity. It demands special attention, and from Russia, Turkey gets it. As the state in the region most capable of foiling its objectives in Syria, Turkey presented an acute problem for Russia, which needed to be addressed by one means or another. Since autumn 2015, there have been two abrupt and contradictory shifts in Ankara's policy. After several Russian overflights and multiple warnings, Turkey downed a Russian Su-24 on November 24. In view of the fact that these aircraft were targeting the very Turkmen tribes in Syria that Turkey had been supporting, it is difficult to imagine that Russia was not testing reactions as well as pursuing its immediate operational objectives. It is equally difficult to imagine that Russia did not draw conclusions from NATO's conspicuously pro forma declaration of support for Turkey, the elaborately even-handed responses of Obama and Hollande, let alone Washington's failure to postpone the scheduled withdrawal of a U.S. air defense component from Turkey in the wake of the

incident.⁶⁶ For several months after the Sukhoi episode, the talk in Moscow corridors was of war.⁶⁷

President Recep Erdogan's letter of condolences to Putin on June 27, 2016, signaled a second shift. In part, this shift points to a general reassessment of the country's ambitious multi-vector policy, whose main accomplishment since the Justice and Development Party (AKP) came to power has been the souring of relationships with all of the country's traditional partners. One sign of this broader reassessment was Erdogan's accord with Benjamin Netanyahu (the same day as his letter to Putin), restoring ties brutally ruptured after Israel's 2010 military offensive in Gaza.⁶⁸

By then, Russia had become a critical factor. For any state in a zone of danger, two questions arise: "Who can hurt us?" and "Who will stand with us?" Erdogan's policies have made it increasingly difficult for others to stand with him. Five years into the Syrian war, Turkey's confidence (not only Erdogan's) is not what it was. Meanwhile, Russia has raised its profile. The terrorist attacks of January and June 2016 provided two fresh reminders of its importance. Following the first outrage in Istanbul on January 13, Russian state media was quick to note that thousands of Russian citizens (the vast majority from the north Caucasus) had joined the ranks of Daesh and its predecessors. Of 68 suspects arrested, 3 were Russian citizens.⁶⁹ For its part, Turkey is home to a large Chechen diaspora (some 100,000), the overwhelming majority of which are Turkish citizens whose forebears arrived after the 19th century Caucasus War and the deportations of 1944. Some 1,500 remain from the group that arrived after the post-1994 conflicts, and their connections and loyalties are more problematic.⁷⁰

Following the yet more shocking attack at Istanbul's Atatürk Airport on June 28, Turkey identified the perpetrators as an Uzbek, a Kyrgyz, and a Russian. At the same time, Ankara informed Washington that the Chechen fighter, Akhmed Chatayev, had organized the attack.⁷¹ Chatayev, released from a Russian prison in 2003, managed to secure refugee status in Austria and at the time of this writing has been pursued by Moscow for his activity in support of Caucasus Emirate, his role in funneling recruits from the north Caucasus to Daesh, and his command of a 250-man Russian-speaking Daesh contingent in Iraq and Syria. Other observers see that grim picture differently. Akhmed Zakayev, Prime Minister of the Chechen Republic in exile, alleges that Chatayev and his group are sponsored by Russian special services.⁷² According to Elena Milashina of *Novaya Gazeta*, the flow of Islamist radicals from the north Caucasus to the Middle East has been controlled by these services "from the very beginning."⁷³ Whatever the truth of the matter, for a country as exposed as Turkey to terrorist attack, it clearly is better to work with Russia than against it. As Lavrov affirmed, "our work against terrorism has become more relevant" after the airport attack.⁷⁴

It would be surprising if Turkish-Russian cooperation has not become even more relevant after the abortive military coup of July 15. Concern in Washington and Brussels that "lists . . . available already after the event . . . indicate that this was prepared to be used at a certain stage" raise questions about Ankara's possible foreknowledge of the plotters and their purpose.⁷⁵ If Russia had prior knowledge, did it keep it to itself or share it? The outcome of the affair, the blaming of Fethullah Gulen, and the embittering of relations between Ankara and Washington have all been grist

for Russia's mill. Its special services are not beyond supplying "evidence" of American perfidy, and Erdogan is possibly a willing customer.⁷⁶

Finally, one should not forget that the southwestern direction includes the South Caucasus. Since the North Caucasus Military District was merged into the Southern Military District in 2010, Russia has been diminishing Turkey's long-standing influence in Azerbaijan. Between 2010 and 2014, 85 percent of Azerbaijan's arms imports have been supplied by Russia. Its exploitation of the short but dramatic conflict in Nagorno-Karabakh (April 1-5, 2016) is another sign of its emerging dominance. Putin immediately entered into discussion with both the Armenian and Azerbaijani Presidents, and a similar process took place between Lavrov, Shoigu, and their respective counterparts. Shoigu brokered the April 5 ceasefire. Notably, the Organization for Security and Cooperation in Europe (OSCE) Minsk Group co-chairs played no role in this process, the first time they had been bypassed since the Group's establishment in 1992. As a result, Baku now "views Moscow as the key to any change in what it sees as an unacceptable 'status quo'."⁷⁷

In the round, developments from the Mediterranean to the Caucasus testify to the priority given by Russia to the southwestern strategic direction and explain why the Southern Military District is "the first to get advanced weapons and hardware."⁷⁸ This declared priority is at odds with the settled conviction in much of the West that the Baltic region is the focal point of Russia's military posture and, in any wider conflict, likely to be "next." Rudimentary as NATO's military reassurance and reinforcement efforts might be, its political and psychological preparation for a conflict in the Baltic States, "hybrid" or otherwise,

exceeds its attentiveness to contingencies that might arise in the area encompassing Bulgaria, Romania, Turkey, and the near East. This inattentiveness already has proved costly.

IN SUMMARY AND PERSPECTIVE

Some 80 years after Lenin invoked the authority of Sun-Tzu on matters of war, Russia's leading authority on military cunning, General V. N. Lobov, reiterated his fundamental axiom: "All war is based on deception."⁷⁹ As Lenin stated in *Left-Wing Communism: An Infantile Disorder*: "To tie one's hands beforehand, openly to tell the enemy . . . whether and when we will fight him is stupidity."⁸⁰ The initiation of Georgia's invasion under cover of exercise Kavkaz-2008, the appearance of "polite little people" in Crimea in 2014, the leveraging of military operations in Donbass with the nuclear blackmailing of European leaders, and the use of ceasefires in Syria to reinforce battlefield success, all illustrate the modern utility of an ancient axiom. In Ukraine, Russia has understated its involvement and overstated its strength. In Syria, it has made its own ruthlessness the currency of its claim to be the "indispensable partner" of those whose power it would destroy. For almost 3 years, Russia has set the agenda. Repeatedly, its putative partners have found themselves unbalanced by nothing more than the determined, crafty, and morally uncomplicated use of military power.

Equally disorientating has been Russia's grasp, not to say exacerbation, of the untidiness of war, exemplified by the "hybrid war" in Donbass and its conflicts with terrorists and "extremists" in the north Caucasus and Middle East. From the time of the Russian Civil

War, the Bolsheviks and their heirs have sought to establish a presence on both sides of every conflict. Russia's notorious enemy, Shamil Basayev, assassinated by the FSB in 2006, first appeared above the radar as a GRU-recruited insurgent in Abkhazia's war against Georgia 14 years prior. For Putin, as well as Lenin, all enemies in irregular wars have uses, and all allies have sell-by dates. Daesh is no exception. It is no ally of Russia, but it is a vehicle as much as an enemy, an arena to be infiltrated and used for war against Daesh's enemies as well as Daesh itself. The same principle applies to the Kurds, the Chechens, and the national-populist parties of Europe.

In one respect, Western conventional wisdom is correct. Russia's decaying economic base ensures that its military power will wane over time, but time is not a strategic actor. It is a variable that must be used if it is to advance political goals. Without strategic thinking, our goals will be hostage to weather and fortune. Without a long-term perspective, time will simply exhaust our patience. Without political will, it will be used against us. Thus far, Russia's leadership has utilized short timelines and limited power with remarkable success. Others have willfully conceded much of this success without a struggle. In Europe, Russia is now constrained, but "containment" is a word that dare not speak its name. In the Middle East, the West has thrown most of its cards away. In Western capitals, faith in common interests with Russia not only obscures the absence of common aims, it has become stronger than faith in the West itself. The mantra that "there can be no security without Russia" survives despite the absence of any reference point in fact. Wherever Russia has sought security, it has threatened the well-being of others and international security as a

whole. So long as this is true, we would be better off concluding that there can be no security with Russia until it mends itself.

Russia has made its own share of tactical and strategic errors. The downing of MH17 was a tactical error with strategic consequences, but of limited duration. It remains to be seen whether Russia's MH17 moment in Syria will be exploited for any strategic purpose. More impressive is the fact that, by comparison with any other figure in Russian or Ukrainian history, Putin has consolidated Ukrainian statehood. He also has accomplished what would have been deemed impossible 5 years ago: the revival of NATO as a serious military instrument in Europe. The West has ample room to reverse both accomplishments.

ENDNOTES - CHAPTER 17

1. Sun Tzu, *The Art of War*, Lionel Giles, trans., Ballingslov, Sweden: Wisehouse Classics, 2006, p. 12, available from <http://www.wisehouse-classics.com>.

2. President Putin, Speech to the 9th Session of the Valdai Club, Moscow, Russia, October 24, 2014.

3. "Dialog a ne voyna: Sergey Naryshkin prizva liderov Zapada uchit' 'uroki Yalty'" ("Dialogue rather than War: Sergey Naryshkin calls upon Western leaders to study the 'lessons of Yalta'"), *Rossiyskaya Gazeta*, February 5, 2015.

4. See "Address by President of the Russian Federation," Moscow, Russia: The Kremlin, March 18, 2014, available from <http://en.kremlin.ru/events/president/news/20603>.

5. Quoted references from Vladimir Putin, "Rossiya: Nacional'nyy Vopros" ("Russia: The National Question"), *Nezavisimaya Gazeta*, January 23, 2012, available from http://www.ng.ru/politics/2012-01-23/1_national.html. For other examples, see *The Concept of Foreign Policy of the Russian Federation*, Moscow, Russia:

Department of Information and Printing, Ministry of Foreign Affairs of the Russian Federation, June 2000, sec. 1, para. 10, reiterated twice in sec. 4, in what translates to “uphold[ing] in every possible way the rights and interests of Russian citizens and compatriots abroad.” Some 2 months before the publication of the *Concept*, Putin claimed that Russia would defend “the interests of our compatriots more attentively, in a more balanced way, and at the same time **more aggressively** [emphasis added].” See BBC Summary of World Broadcasts, March 24, 2000. Also, Putin’s speech at the Congress of Compatriots Residing Abroad, October 2001; Foreign Policy Review of the Russian Federation, March 2007; “Guide to the Congress of Compatriots, *Mezhdunarodnaya Zhizn*,” No. 6, 2009.

6. Putin, “Rossiya: Natsional’niy Vopros.”

7. K. S. Gadzhiev, the leading Russian authority on geopolitics, defines states as sovereign “spatial-geographical phenomena” and characterized geopolitics in the post-Cold War global market as “intensification of struggle to expand the limits” of influence in a “divided world.”

8. Interview, “Vtoraya Kholodnaya” (“The Second Cold”), *Rossiyskaya Gazeta*, October 15, 2014, available from <http://rg.ru/2014/10/15/patrushev.html>.

9. The military doctrines of 2010 and 2014 do not refer to NATO policy as a threat (*ugroza*) but a danger (*opasnost*).

10. What Konstantin Kosachev, former Chairman of the State Duma Committee on Foreign Affairs, describes as granting Russia “real influence on the decision-making process.” See “Three Birds with One Stone?” *Russia in Global Affairs*, March 27, 2011, available from <http://eng.globalaffairs.ru/number/Three-Birds-with-One-Stone-15146>.

11. Petr Karapetyan, “NATO Bombing Kosovo Today, Russia Tomorrow,” *Krasnaya Zvezda (Red Star)*, March 27, 1999, p. 3. The article goes on to say, “tomorrow they will bomb Russia because of Chechnya, Ukraine because of Crimea, Moldova because of Trans-Dnestria, and Georgia because of Abkhazia and South Osetia.”

12. For an impressively comprehensive study, see Andrew Monaghan, "Russia's State Mobilization: Moving the Country on to a War Footing," Russia and Eurasia Programme, London, UK: Chatham House, May 2016.

13. See "Security Council structure," Moscow, Russia: The Kremlin, n.d., available from <http://en.kremlin.ru/structure/security-council/members>.

14. David Holloway, "Gorbachev's New Thinking," *Foreign Affairs*, America and the World 1988 Issue, 1988, available from <https://www.foreignaffairs.com/articles/russia-fsu/1989-02-01/gorbachevs-new-thinking>.

15. Sergey Markedonov, *The Big Caucasus: Consequences of the "Five Day War," Threats and Political Prospects*, Athens, Greece: International Centre for Black Sea Studies, May 2009.

16. "Vystuplenie na otkrytiy Kongressa sootchestvennikov" ("Speech at the Congress of Compatriots"), Moscow, Russia: The Kremlin, October 11, 2001, available from <http://kremlin.ru/events/president/transcripts/21359>.

17. "Russian Federation Security Council Statement," September 9, 1996.

18. James Sherr, "Russia-Ukrainian Rapprochement: The Black Sea Fleet Accords," *Survival*, Vol. 39, No. 3, Autumn 1997, pp. 35-50.

19. "Bucharest Summit Declaration," April 3, 2008, para. 23. Russia regards Kosovo's independence as a violation of Article 1 of the Helsinki Final Act and United Nations Security Council (UNSC) 1244 of December 1999, "reaffirming the commitment of all Member States to the sovereignty and territorial integrity of the Federal Republic of Yugoslavia." On July 22, 2010, an advisory opinion of the International Court of Justice declared Kosovo's declaration valid under international law, inter alia because UNSC 1244 was not a "final status" document. Today, its independence is recognized by 108 of 193 UN member states.

20. At the Valdai Club lunch on September 11, 2008, Medvedev stated that Saakashvili had acted at the behest of “foreign powers.” Author’s notes.

21. “Living Through Bad Times,” *National Security and Defence*, Vol. 2, No. 106, Kyiv, Ukraine: Razumkov Centre, 2009.

22. Ministers and other senior officials from the President’s Administration, Ministry of Foreign Affairs (MFA), Ministry of Defense (MoD), and National Security and Defence Council told the author that they felt an immediate difference as soon as Putin was appointed. On the eve of Putin’s state visit in June 2000, senior Moldovan officials expressed the same view.

23. James Sherr, “The Mortgaging of Ukraine’s Independence,” *Russia and Eurasia Programme*, REP BP 2010/01, August 2010, especially pp. 11-16.

24. Taras Kuzio, “Ukraine’s New Old Siloviki,” *Eurasia Daily Monitor*, Vol. 7, Issue 63, April 1, 2010. Also see Taras Kuzio, “Yanukovich Authorizes the Return of Russia’s FSB to the Crimea,” *Moldova.org*, May 24, 2010, available from <http://www.moldova.org/en/yanukovich-authorizes-the-return-of-russias-fsb-to-the-crimea-209210-eng/>.

25. As relayed to the author by advisers to Serhiy Taruta, appointed governor of Donetsk Oblast by acting President Turchynov in March 2014.

26. “Putin provel zasedanie Sovbeza po Ukraine i Sirii” (“Putin Conducted a Meeting of the Security Council on Ukraine and Syria”), *Vzglyad*, January 24, 2014.

27. “Genshtab poluchil dopolnitel’niye polnomochiya, podgotovil plan perekhoda RF na usloviq voennogo vremen” (“General Staff Received Additional Authority, Prepared Plan of Transition of the RF to a Wartime Footing”), *News.Ru*, January 25, 2014.

28. SVR Lieutenant General (Ret.) Reshetnikov is Director of the Russian Institute for Strategic Studies (RISI), described as the “leading scientific-analytical centre of the President’s

Administration.” Interview in *Argumentiy Nedeli*, Iss. 453, No. 12, April 2, 2014, available from <http://argumenti.ru/toptheme/n481/394395>.

29. The word “Maidan” means demonstrations and civil unrest. The first began on November 21, 2013, with public protests in Kiev, Ukraine; the second on February 18-20, 2014. For a brief overview of conflicted national sentiments in eastern Ukraine, see James Sherr, “A War of Narratives and Arms,” *The Russian Challenge*, London, UK: Chatham House, June 2015, pp. 24, 26.

30. Sherr, “A War of Narratives and Arms.”

31. “Strelkov soobshchil, chto eto on nachal voynu na Ukraine” (“Strelkov Said that It Was He Who Began the War in Ukraine”), BBC Russian Service, November 20, 2014.

32. Igor Strelkov, “Eto vse, na chto viy sposobniy?” (“Is that all that you are capable of?”), *Vzglyad*, May 18, 2014; “Strelkov’s Address: Complains that the people are not supporting the fighters,” YouTube channel Mrachny Molochnik, May 18, 2014, available from <https://www.youtube.com/watch?v=-T68YLCV0HA>.

33. As officially designated, the Protocol on the Results of Consultations of the Trilateral Contact Group (Minsk-I) and the Package of Measures for Implementation of the Minsk Agreements (Minsk-II).

34. *Voenniy Entsiklopedicheskiy Slovar (Military Encyclopedic Dictionary)*, Moscow, Russia: Ministry of Defense, Union of Soviet Socialist Republics, 1983, p. 713. Hereafter VES.

35. For example, Taras Chornovil, “My byliy za neskol’ko dney do yadernoy voyniy” (“We were days away from nuclear war”), Znaj.org.ua, February 24, 2015, available from <http://www.litsa.com.ua/show/a/20558>. In September 2014, Putin had rattled the nuclear sabre at European Commission President Jose Manuel Barroso in a private conversation. The Kremlin’s fury when Barroso publicized the comments suggests that his purpose was intimidation, rather than propaganda. “Leaked Putin comment on Ukraine spurs diplomatic showdown,” CBS News,

September 2, 2014, available from <http://www.cbsnews.com/news/leaked-putin-remarks-on-ukraine-enrage-russia>.

36. For two analyses of the Minsk process, see James Sherr, "Russia's Minsk and Yalta Projects," Intersection Project, May 29, 2015, available from <http://intersectionproject.eu/article/russia-europe/russias-minsk-and-yalta-projects>; and James Sherr, "Ukraine—How to Resolve the Conflict?" in *OSCE Focus: Europe in Crisis: Renewed Relevance of the OSCE?* OSCE Focus Conference Proceedings, 9-10 October 2015, Maison de las Paix, Gevena, Switzerland: Geneva Centre for the Democratic Control of Armed Forces (DCAF), October 2015, pp. 20-21, available from <http://www.dcaf.ch/sites/default/files/publications/documents/OSCE-Focus-Conference-Proceedings.pdf>.

37. At the conclusion of the November 2014 G20 summit, Angela Merkel emphasized that "old thinking in spheres of influence (and) the trampling of international law will not succeed," adding that such a policy would be opposed "no matter how long it will take, however difficult this might be, and however many setbacks it might bring."

38. The terms, published by the DNR leadership alongside the Surkov-Nuland meeting of January 2016, include granting the DNR/LNR bloc in the Rada the right of veto of all foreign policy decisions. Kirill Sazonov, "Boeviki ozvuchili trebovaniq. Na Minske mozžno postaviti tochku" ("The fighters articulated their demands. We can draw Minsk to a close"), Glavcom, January 28, 2016, available from <http://glavcom.ua/articles/37520.html>.

39. The Paris understandings of October 2, 2015, agreed to by all four Normandy parties (France, Germany, Russia, and Ukraine), reinforce the Minsk requirement on unimpeded OSCE access and return of Ukraine's eastern border by stipulating that failure to fulfill any single point would invalidate the whole. "Parizhskie Soglasheniya. O chem dogovorilis' Poroshenko i Putin" ("The Paris Agreements. What Poroshenko and Putin agreed"), LIGA, October 3, 2015, available from http://news.liga.net/articles/politics/6785404-parizhskie_soglasheniya_o_chem_dogovorilis_poroshenko_i_putin.htm.

40. "Washington briefs Kyiv on Nuland-Surkov meeting—Embassy," Interfax News Agency Ukraine, January 16, 2016, available from <http://en.interfax.com.ua/news/general/318001.html>;

Sergey Rakhmanin, "Smena Kursa?" ("Change of Course?"), *Dzerkalo Tizhnya*, January 22, 2016, available from <http://gazeta.zn.ua/internal/smena-kursa-.html>.

41. "Putin, Merkel' i Olland obsudyat Ukrainu na polyakh sammita G20" ("Putin, Merkel and Hollande will discuss Ukraine at the G20 summit"), BBC News, August 23, 2016, available from <http://www.bbc.com/russian/news-37167774>.

42. For a penetrating overview of this process, see Andrew Monaghan, "Russia's State Mobilisation: Moving the Country on to a War Footing," Chatham House Research Paper, London, UK: Chatham House, May 2016.

43. "Rossiyskie ministerstva i TsB proveryat na gotovnost' k rabote v voennoe vremya" ("Russian Ministries and Central Bank tested for readiness to operate in time of war"), Ministry of Defence, republished from Riga, Latvia: Meduza, August 29, 2016, available from <https://meduza.io/news/2016/08/29/rossiyskie-ministerstva-i-tsb-proveryat-na-gotovnost-k-rabote-v-voennoe-vremya>.

44. "Kontseptual'nye vzglyady na deyatelnost' Vooruzhennykh Sil Rossiyskoy Federatsii v informatsionnom prostranstve" ("Conceptual Views Regarding the Activities of the Armed Forces of the Russian Federation in the Information Space"), Moscow, Russia: RF Ministry of Defence, 2011, p. 5.

45. As defined in the seminal study, Richard H. Shultz and Roy Godson, *Dezinformatsia: active measures in Soviet strategy*, Oxford, CT: Pergamon-Brasseyes, 1984, p. 2.

46. Vadim Kononenko and Arkady Moshes, eds., *Russia as a Network State: What Works in Russia When State Institutions Do Not?* Basingstoke, UK: Palgrave Macmillan, 2011. On the patrimonial aspects of today's Russia, see Vladislav L. Inozemtsev, "Neo-Feudalism Explained," *The American Interest*, Vol. 6, No. 4, March 1, 2011, available from <https://www.the-american-interest.com/2011/03/01/neo-feudalism-explained/>.

47. S. R. Covington, "Putin's Choice for Russia," Cambridge, CT: Harvard Kennedy School Belfer Center, August 2015, p. 12. Stephen Covington is International Affairs Advisor to Supreme Allied Commander Europe (SACEUR), Mons, Belgium. His

article, written in a strictly personal capacity, does not necessarily express the views of SACEUR or NATO.

48. Defined with near perfect consistency since the first published reference in the *Military Encyclopedia, 1911-1915*, available from <http://militera.lib.ru/enc/sytin/index.html>. The leading authority, who wrote copiously on the subject in the late and post-Soviet periods, is former CGS Army General Vladimir Lobov, "Vladimir Nikolaevich Lobov," International United Biographical Center, n.d., available from http://www.biograph.ru/index.php?id=700:lobov-vn&Itemid=29&option=com_content&view=article.

49. Its core aims are to "achieve surprise, preserve combat readiness and to increase the sustainability of forces," VES, p. 430.

50. "Pentagon: Rossiya kontsentrirovat voyska v Krymu tol'ko dlya ucheniy" ("Pentagon: Russia is concentrating its forces in Crimea only for an exercise"), *Ukrainskaya Pravda*, August 20, 2016, available from <http://www.pravda.com.ua/rus/news/2016/08/20/7118262/>; Michael Kofman, "The Crimean Crisis and Russia's Military Posture in the Black Sea," *War on the Rocks*, August 19, 2016, available from <http://warontherocks.com/2016/08/the-crimean-crisis-and-russias-military-posture-in-the-black-sea/>.

51. VES, p. 233; "diversiya" ("diversion"), *Slovar' voennykh terminov* (Dictionary of Military Terms), n.d., available from http://military_terms.academic.ru/719/Diversiya.

52. Timothy L Thomas, "Russia's Reflexive Control Theory and the Military," *Journal of Slavic Military Studies*, Vol. 17, Iss. 2, 2004, p. 237.

53. *Ibid.*, p. 241.

54. In spring 2006, the Kremlin circulated an elaborately forged report, "Mikhail Saakashvili: A Psychological Study of the Character," falsely co-authored by several real and bogus Western psychiatric research centers. Although few were fooled by the ruse, the text managed to convey the Kremlin's view, which several Georgian insiders pronounced accurate, of his temperament.

55. VES, p. 617.

56. NATO's public summary of the meeting of the NATO-Georgia Commission on July 22 made no mention of the episode. See "NATO-Georgia Commission discusses state of partnership, welcomes Georgia's reform progress," North Atlantic Treaty Organization, last updated July 22, 2015, available from http://www.nato.int/cps/en/natohq/news_121864.htm.

57. "Krym i Sevastopol voshli v Yuzhniy Voenniy Okrug" ("Crimea and Sevastopol have joined the Southern Military District"), *Golos Sevastopolya (Voice of Sevastopol)*, April 3, 2014, available from <http://voicesevas.ru/news/crimea/70-krym-i-sevastopol-voshli-v-yuzhnyi-voenn.html>.

58. "Rossiya gotova razmestit' sukhoputnye voysk v Krymu" ("Russia is Ready to Deploy Ground Forces in Crimea"), *Korrespondent*, January 22, 2016, available from <http://korrespondent.net/ukraine/3618770-rf-hotova-razmestyt-sukhoputnye-voiska-v-krymu>; "Rossiya gotova pri neobkhodimosti razvernut' Sukhoputnye voyska v Krymu" ("Russia is ready to deploy Ground Forces in Crimea should it be necessary"), January 22, 2016, available from <https://www.gazeta.ru/army/news/8152721.shtml>.

59. George Visan and Octavian Manea, "Crimea's Transformation into an Access-Denial Base," Black Sea in Access Denial Age, website of Romania Energy Center and North Atlantic Treaty Organization, July 14, 2015, available from <http://bsad.roec.biz/portfolio-item/crimeas-transformation-into-an-access-denial-base/>.

60. Luke Coffey, "Russia's emerging naval presence in the Mediterranean," *Al Jazeera*, May 27, 2016, available from <http://www.aljazeera.com/indepth/opinion/2016/05/russia-emerging-naval-presence-mediterranean-160526074150359.html>.

61. Captain Thomas R. Fedyszyn, "The Russian Navy 'Rebalances' to the Mediterranean," *Proceedings*, Vol. 139/12/1,330, December 2013, available from <http://www.usni.org/magazines/proceedings/2013-12/russian-navy-rebalances-mediterranean>.

62. "Shoygu: na yugo-zapade skontsentrirovany ugroziy natsinteresam Rossii" ("Shoygu: there is a concentration of threats against Russian national interests in the south-west"), *Argumentiy Nedeliy*, February 21, 2013, available from <http://argumenti.ru/army/2013/02/234652>.

63. "Sergey Shoygu: Rossiyskiy flot ostanetsya v Sredizemnom more na postoyannoy osnove" ("Sergey Shoygu: Russian fleet will remain in the Mediterranean Sea on a permanent basis"), RT, March 11, 2013, available from <https://russian.rt.com/article/5472>.

64. "Cyprus signs deal to allow Russian navy to use ports," BBC, February 26, 2015, available from <http://www.bbc.co.uk/news/world-europe-31632259>; Ian Drury, "Putin's Cyprus deal gives Russia a foothold in the EU: British MPs blast island's decision to let Moscow's navy use its ports," *Daily Mail*, updated February 27, 2015, available from <http://www.dailymail.co.uk/news/article-2971278/Putin-s-Cyprus-deal-gives-Russia-foothold-EU-British-MPs-blast-island-s-decision-let-Moscow-s-navy-use-ports.html>.

65. "Shoygu v Sevastopole vruchil orden Nakhimova flagmanu Yernomorskogo flota" ("Shoygu in Sevastopol confers the Order of Nakhimov on the flagship of the Black Sea Fleet"), RIA Crimea, updated July 22, 2016, available from <http://crimea.ria.ru/society/20160722/1106329982.html>; "Three layers of Russian air defense at Hmeymim air base in Syria," TASS, February 12, 2016, available from <http://tass.com/defense/855430>.

66. "Statement by the NATO Secretary General after the extraordinary NAC meeting," North Atlantic Treaty Organization, November 24, 2015, available from http://www.nato.int/cps/en/natohq/news_125052.htm; Kevin Liptak, "Obama: Turkey has the right to defend itself and its airspace," CNN, updated November 24, 2015, available from <http://www.cnn.com/2015/11/24/politics/obama-francois-hollande-white-house-meeting/>; "US urges Turkey and Russia to end row over downed plane," BBC, December 1, 2015, available from <http://www.bbc.com/news/world-europe-34974409>; "Obama, Hollande call on Turkey and Russia to prevent escalation after jet downing," RT, updated November 25, 2015, available from <https://www.rt.com/usa/323324-hollande-obama-isis-terrorism/>.

67. For an overview, see Pavel Felgengauer, "Rossiya nachala podgotovku k bol'shoy voyne" ("Russia has begun preparations for a big war"), *Novoe Vremya*, February 9, 2016, available from <http://nv.ua/opinion/felgengauer/rossija-nachala-podgotovku-k-bolshoj-vojne-96316.html>.

68. Oren Liebermann and Elise Labott, "Israel, Turkey strike deal to normalize ties," CNN, updated June 27, 2016, available from <http://www.cnn.com/2016/06/26/middleeast/israel-turkey-relations/>.

69. "Turkey arrests Russian suspects after Istanbul attack," *Deutsche Welle*, January 13, 2016, available from <http://www.dw.com/en/turkey-arrests-russian-suspects-after-istanbul-attack/a-18975028>; "Three Russians Detained in Antalya Following Istanbul Blast," *Sputnik*, updated January 16, 2016, available from <https://sputniknews.com/middleeast/20160113/1033040245/russians-detained-turkey-antalya-istanbul-blast.html>.

70. Marc Brody, "The Chechen Diaspora in Turkey," *North Caucasus Weekly*, Vol. 6, Iss. 7, January 1, 1970, available from https://jamestown.org/program/the-chechen-diaspora-in-turkey-2/#.V98R1Dugo_k; Mairbek Vatchagaev, "Chechnya's Exodus to Europe," *North Caucasus Weekly*, Vol. 9, Iss. 3, January 25, 2008, available from https://jamestown.org/program/chechnyas-exodus-to-europe/#.V98VxTugo_k.

71. Constanze Letsch, "Istanbul airport attack: Turkey says bombers were from Russia and central Asia," *The Guardian*, June 30, 2016, available from <https://www.theguardian.com/world/2016/jun/30/istanbul-airport-attack-turkish-police-carry-out-raids>; Julian E. Barnes, Thomas Grove, and Richard Boudreaux, "US Suspects Chechen Was Behind Istanbul Airport Attack," *The Wall Street Journal*, updated July 3, 2016, available from <http://www.wsj.com/articles/u-s-suspects-chechen-was-behind-istanbul-airport-attack-1467458810>; Associated Press, "A Chechen extremist masterminded the triple suicide bombing at Istanbul's busiest airport," *Business Insider*, July 1, 2016, available from <http://www.businessinsider.com/chechen-man-organized-istanbul-bombing-2016-7>.

72. "Akhmed Zakayev: Za Teraktami v Turtsii stoyat rossiyskie spetssluzhbiy" ("Akhmed Zakayev: Behind the Terrorist Acts in Turkey Stand Russia's Special Services"), Radio "Echo of the Caucasus," project of Radio Free Europe/Radio Liberty, July 3, 2016, available from <http://www.ekhokavkaza.com/a/27835577.html>.

73. Cited in Paul Goble, "Novaya Gazeta—FSB Helps Islamists from Russia Go to Syria, Only Worried When They Come Back," *The Interpreter*, July 31, 2015, available from <http://www>.

interpretermag.com/novaya-gazeta-fsb-helps-islamists-from-russia-go-to-syria-only-worried-when-they-come-back.

74. "US Suspects Chechen Was Behind Istanbul Airport Attack."

75. Irene Kostaki, "EU Commissioner Hahn on Turkey coup attempt: 'Lists were ready'," *New Europe*, July 18, 2016, available from <https://www.neweurope.eu/article/eu-commissioner-hahn-on-turkey-coup-attempt-lists-were-ready>.

76. Tim Arango and Ceylan Yeginsu, "Turks Can Agree on One Thing: U.S. Was Behind Failed Coup," *The New York Times*, August 2, 2016, available from http://www.nytimes.com/2016/08/03/world/europe/turkey-coup-erdogan-fethullah-gulen-united-states.html?_r=0.

77. Richard Giragosian, "The Nagorno-Karabakh conflict: Ceasing fire is not a ceasefire," LSE The London School of Economics and Political Science, LSE Comment, April 11, 2016, available from <http://blogs.lse.ac.uk/euoppblog/2016/04/11/the-nagorno-karabakh-conflict-ceasing-fire-is-not-a-ceasefire/>.

78. "Southwestern 'strategic direction' remains Russian military's priority – General Staff," TASS, September 14, 2016, available from <http://tass.com/defense/899774>; Michael Kofman, "Putin's Military is Playing the Long Game in Ukraine," *Foreign Policy*, August 31, 2016, available from <http://foreignpolicy.com/2016/08/31/dont-look-now-but-russias-got-ukraine-surrounded-crimea/>; "Armiya RF natselilas' na yugo-zapad" ("The Army of the RF is targeted on the southwest"), Utro.ru, September 14, 2009, available from <http://www.ytro.ru/articles/2016/09/14/1297332.shtml>.

79. V. L. Lobov, *Military*, Moscow, Russia: Golos, 2001, p. 7.

80. Vladimir Lenin, *Left-Wing Communism: An Infantile Disorder*, New York: International Publishers, 1940, p. 59.

CHAPTER 18. RUSSIA IN NORTH CAUCASUS: TWO HUNDRED FIFTY YEARS OF COUNTERINSURGENCY. PUTIN'S WAR AGAINST ISLAMIST EXTREMISM

Ariel Cohen

The Russian North Caucasus, including the republics of Chechnya, Dagestan, and Ingushetia, has been a dangerous, often ungovernable area for over 200 years. Today, violently pacified by Moscow, it is playing a major role in Russian domestic politics, although global Islamic terrorism thrives there even after the 1999-2003 second Chechen war that ended a long time ago. After conventional military operations of 1994-1996 and 1999-2000 ceased, the region has become a nexus for spreading global jihadi violence, as the attack on the Boston marathon by the Tsarnaev brothers demonstrated. Al-Qaeda's Ayman al-Zawahiri called the North Caucasus "one of three primary fronts in the war against the West"—something many in the West, including U.S. authorities, have not noticed. This is a threat not just to Russia, but also to Europe and to global stability. While the Russian military has come a long way since the defeats in Chechnya in the 1990s as the performance in Syria in 2015-2016 indicates, it will remain involved in both North and South Caucasus for the near future.

While Russian and North Caucasian peoples endured war, violence, and upheaval since the 1700s, the region's unprecedented emergence as a center of global Islamic terrorism has been a recent phenomenon that started in the mid-1990s. It is unclear whether the Russian authorities have the institutional capacities to provide adequate responses to the security challenges

provided by the North Caucasus, both domestically and internationally. Terrorism as a tactic among North Caucasus-based Islamist groups is a recent trend but has swiftly catapulted into the primary form of violence against Russia. As of the time of this writing, the radical North Caucasus groups include *Jamaat Shariat* (The Dagestani Front of the Caucasus Emirate's Armed Forces); *Yarmuk Jamaat* (The Armed Forces of the United Vilayat [Province] of Kabarda-Balkaria-Karachai); *Ingush Jamaa Riyyadus Salihin*, which is headed by Amir Khamzat; and Doku Umarov's Caucasus Emirate, established in 2007 and declared a terrorist organization by the U.S. State Department on May 26, 2011.¹

The goals of these groups include:

1. To discourage Russian authorities from fighting the terrorists, who have a "long-war" strategy to bog down their adversaries with attacks on military and civilian targets;
2. To spread Islamist ideology "by example" and recruit North Caucasus youth for the "holy war" against Russia as well as for global "jihad;" and,
3. To fight to create the "Caucasus emirate" (*Imarat Kavkaz*). The latter is a self-proclaimed state entity that would stretch over the entire North Caucasus. Its main goal is to secede from Russia and form an independent state ruled by the Sharia law.

Terrorism in the North Caucasus was pioneered by the Chechen fighters in the 1990s, when forces commanded by Shamil Basayev executed the Pervomaysk and Budyonnovsk attacks. In Budyonnovsk in June 1995, 195 terrorists led by Basayev took about 1,500 civilians hostage in the village in the Stavropol

District. During the attack, 129 people were killed and 415 injured. The operation was a success for the terrorists, who released the hostages after Moscow granted them a safe passage to Chechnya. In Pervomaysk in January 1996, a group of rebel fighters took hostage 36 policemen while trying to cross the nearby border into Chechnya. They managed to escape the several-day siege of the village conducted by the Russian military and made it to Chechnya, albeit with significant casualties (153 out of several hundred-rebel fighters were killed).²

The astonishing Dubrovka Theater siege in 2002, the 2004 Beslan school massacre, and the 2011 Domodedovo Airport bombing represent the extent to which North Caucasian terrorists are ready to fight and kill for global jihad. However, it appears that the Islamist fighters adjust their tactics and occasionally respond to public criticism. For instance, Doku Umarov has publicly stated that he ordered his fighters to stop civilian attacks.³ He justified the order by stating that the Russian civil society does not support the Vladimir Putin regime and is its hostage in the same way the Chechen fighters for independence are hostages. Nevertheless, the threat to Russia and the world, including civilians, remains severe.

In order to provide adequate policy, military, and security solutions, U.S. military planners and security providers should understand the history, geography, politics, and religious conflicts that are pertinent to the issue at hand. This is what this chapter attempts to accomplish.

HISTORY OF WARFARE AND COUNTERINSURGENCY ALONG RUSSIA'S CAUCASUS BORDERLANDS

Russia and the nations of the Northern Caucasus have been in perpetual conflict since the 18th century when Russia's military under Catherine the Great annexed the region into the Russian Empire. Imperial Russia and subsequently the Soviet Union have had a substantial impact on the history, identity, and development of the entire Caucasus. Tsarist Russia needed the North Caucasus to secure its connections to and the rule over Southern Caucasus, to establish a bridgehead against the Ottoman Empire and Iran, and to extend its Black Sea coastline. To capture Northern Caucasus, Russia used extensive military force, ethnic cleansing, agricultural colonization, and oppression to force the local Islamic tribes under its rule.⁴

However, since the first battles in the 18th century through the present day, Russia has failed to suppress fully and effectively the separatist tendencies of the Northern Caucasian peoples, who have maintained their culture, language, Islamic religion, and therefore a distinct, and at times, hostile identity from Slavic Orthodox Russians. In order to open military maneuver space in the South Caucasus and the Black Sea area, and to prepare bridgeheads for the onslaught against the declining Ottoman Empire, Russian imperial forces began their invasions of North Caucasus, starting in the 18th century and going into the 19th century.

During the Caucasus war in the 19th century, General Alexei Petrovich Yermolov, the most prominent Russian general in the field, used the tactic of carrots and sticks. As a stick to punish Chechen rebels committing crimes against the Russians, he used ethnic

cleansing, burned down villages, and cut down forests. He would order attacks even if he knew that Russian losses would be significant. Yermolov:

punished the rebellious Chechens, burning their villages, destroying their forces, beating them in skirmishes that never developed into battles, and, occasionally even seeking to win them over by an unwanted display of clemency.⁵

Yermolov also made use of carrots by attempting to lure the local elites to the Russian side through various gifts and concessions. They were permitted to serve the Russians and given salaries as if they represented the Russian leadership in the areas they controlled.⁶ Co-optation of and cooperation with local ethnic elites was a cornerstone of the Russian empire in general. In other words, Russian leadership used their counterparts from the ethnic groups they came to dominate to ensure the metropolitan rule.

Yet, the highlanders fought back. Imam Shamil, a political and religious leader of the Muslim tribes of the North Caucasus put up the fiercest resistance against the powerful Russian Army for 25 years (1834-1859). Initially, he tried to avoid direct battles with the Russian forces, recognizing that his position was not sound enough, and he did not wish to waste lives. Instead, he concentrated on solving internal problems, and for a period, he was able to concentrate power and avoid major confrontations with the Russian forces. Vladimir Degoyev, a Russian historian, quotes Shamil, who described his hit-and-run tactics as "hare's run."⁷ Over time, the radical members of the imamate intensified pressure on Shamil to revise this tactics and become more aggressive.

In the early 1840s, Shamil's charismatic leadership allowed him to mobilize an army of more than 10,000 men within days. This newly realized strength, combined with the pressure from the local elite, motivated Shamil to abandon the "hare's run" approach and take advantage of the momentum he gained from his earlier attacks to initiate broad offensive actions against the Russians. He hurried to consolidate his gains and conquer new territories. By proclaiming liberation from the oppression of the infidel, Shamil facilitated the consolidation of his power over his newly conquered lands.

Unlike the Russian wars with Turkey and Iran, wars with Shamil were more difficult because his unexpected tactics were deemed "barbarian" by the Russians. Shamil forced the Russians to fight an unconventional war, to which they had trouble adapting. His military talent was based on taking advantage of the unique flexibility of his troops and on understanding the impossibility of defeating the Russians in an open battle. Despite the impression that Shamil's tactics lacked coherence, he always had a plan that took into account the peculiarities of each battle, especially the terrain. He usually attacked the flanks and the rear first, avoiding head-on clashes. Shamil also paid attention to defense. He built a series of defensive posts, each of which was meant to weaken and exhaust the enemy.

Examples of such tactical successes include the Ichkerinsky Battle in 1842 and the Battle of Dargo in May and June 1845. The Ichkerinsky Battle took place from May 30 to June 2, and the Chechens used tactics of "loose formation" (*rassypnoy stroy*) and "migrating artillery," consisting mostly of captured cannons.⁸ The Russians tried to take advantage of the fact that the

main forces of Imam Shamil were in Dagestan at that time. However, the Russians under the command of Adjutant-General Pavel Grabbe had to withdraw after losing 66 officers. In the Battle of Dargo, Shamil and the highlanders again avoided direct clashes with the Russians. They constructed a series of fortifications, which gave them time to fire at the enemy as they were overcoming each obstacle. These tactics increased the number of Russian casualties but were insufficient to keep the Russians out of Dargo. On July 6, 1845, the Russians conquered Dargo.⁹ Before abandoning the city, Shamil and the highlanders burned it to the ground.

During the 17th to 19th centuries, flatlands north of the Terek River gradually came under control of the Cossack settlements and the Russian military.¹⁰ While the Russians were able to inflict serious damage, the mountainous terrain south of the Terek River proved very difficult for the imperial military. Chechen and other nations resisting the Russians could hide and organize in the mountains while defending themselves from the advancing forces. This enabled the North Caucasus insurgents to battle the Russian invasion forces long after the annexation of Georgia in 1801, Armenia in the early 1810s, and Azerbaijan in the late 1820s.¹¹

Beyond military subjugation, the Russian Empire did not have a cohesive strategy to introduce Russian culture through “soft-power” means that would seek to attract peoples of the Caucasus to their orbit. Instead, in parts of the region, the main goal of the Russian leadership was to “liberate” the Caucasus from the local indigenous people by ethnic cleansing.¹² New Russian settlements were built on the territories cleared by the advancing forces. These settlements were to serve as a means of an eventual full Russification of the region

and for further penetrating into the mountainous territories. With a limited “soft power” toolbox, tsarist Russia had to rely on violence and destruction of the North Caucasus tribes to control the region. Although it managed to colonize the region outright, military power never fully extinguished the desire among indigenous peoples to shake off the Russian yoke.

It is worth noting that Russia was not the only power that used harsh methods to enlarge its territory and subjugate the people that lived along its perimeter or in the colonies. The 19th century was a century of struggle of large powers for dominance, and similar approaches were used by other empires, such as the British, French, and Ottoman, as well as the expanding United States.

AFTER WORLD WAR I

Following World War I and during the Russian Civil War (1918-1921), Chechnya initially supported tsarist forces. However, it switched sides and supported the Bolsheviks because of a series of myopic mistakes made by General Anton Denikin, the commander of the anti-communist (White) southern Russian forces, in his treatment of the North Caucasus nations. First, Denikin ignored the level of alienation and the atheism the Bolsheviks imposed on the traditional life of the Muslim highlanders. Second, blinded by the imperialism permeating other tsarist generals who advocated “Russia one and undivided,” Denikin and his men turned the highlanders peoples against them.¹³ The White forces myopically viewed this strategy as a new conquest of the Caucasus, which did not allow for alliances with the local Chechen and Ingush leadership, who initially were willing to fight the Red Army on the side of

the White Army. Impractical actions of Denikin only intensified the alienation of the North Caucasus people from the White Army. He punished the Chechens and wanted them to “pay back” for all losses suffered by the Don and Kuban Cossacks, who fought on the tsarist side. Both the Chechens and the Ingush responded with a fierce resistance and expelled Denikin’s forces from the area. Other strategic mistakes added to the Chechen and Ingush defiance. Just like Yermolov more than half a century before, Denikin made use of the tactic of “scorched earth,” which led to further alienation of the North Caucasian nationalities.¹⁴

The new Soviet leadership made its own mistakes in the North Caucasus. It was openly hostile toward Islam, rudely ignored the mountaineers’ traditions, and used the total expropriation approach of “military Communism” that existed in Russia in 1918–1921.¹⁵ It provided for abolition of private banks, nationalization of industry, central planning, government monopoly on commerce, equal distribution of material goods, and mandatory labor.¹⁶ This approach of the communists quickly cooled down the mountaineers’ enthusiasm, who initially welcomed the arrival of the Red Army. However, despite their mistakes, the Soviets were willing, at least on paper, to grant them a certain level of autonomy, proclaimed in the Declaration of the Rights of the Peoples of Russia.¹⁷ Despite Soviet promises, the disillusionment with the Red dictatorship set in quickly.

STALIN CRACKS DOWN

During the time of the Russian Civil War (1918–1921) and the establishment of the Soviet Union (1922), the Red Army crushed the Caucasian revolt with mercilessness similar to that of the tsar. After the defeat of

the White Armies, including the ones of the Don and the Kuban Cossacks, the Soviet Union retained ethnic Russians' dominance over the region using the new military technologies of World War I: tanks, airpower, modern artillery, and chemical weapons. The Caucasus tribes, on the other hand, were primarily using the same weapons they had in the 18th and 19th centuries.¹⁸

As an ethnic Georgian, Joseph Stalin, born Iosif Vissarionovich Dzhugashvili in the Georgian town of Gori, first became the Commissar for Nationalities, and then the leader of the Soviet Union. Peoples of the Caucasus entered into a new chapter of relations with Moscow that would soon see their nations torn out at the roots.

As World War II raged, Stalin accused Northern Caucasus peoples, especially Chechens, Ingush, Karachays, and Balkars, as well as Kalmyks and Crimean Tatars, of treason against the state and alleged collusion with the Nazis, despite the lack of any credible evidence.¹⁹ Although many Caucasian highlanders fought valiantly in the Red Army in World War II, Stalin punished even veterans, their families, and their nations with death, imprisonment, and brutal relocation to Siberia and Central Asia. In this genocidal ethnic cleansing, up to one-third of Chechens died.

After Nikita Khrushchev's recognition of Stalin's atrocities and the "cult of personality," he allowed exiled Chechen, Ingush, and others to return to their native lands from the exile as a part of Khrushchev's "thaw" policies. While many (but not all) returned to their ancestral homelands, they still were unable to practice their religion fully along with some of their cultural traditions, due to the restrictions placed on all Soviet citizens. As a result, the remnants of their customs went underground; however, as tribal elders

found great difficulty in transferring their traditions and practices to the young after repatriation in 1956-1957, North Caucasus became bereft of cultural and religious leaders who would preserve the Islamic Sufi tradition during post-Stalinist Soviet period.²⁰ This religious and cultural vacuum in the region became fertile grounds for new Salafi forms of Islam that infiltrated North Caucasus in 1990s, and encountered little competition from the traditional, moderate forms of Islam.²¹

COLLAPSE OF THE UNION OF SOVIET SOCIALIST REPUBLICS (USSR) AND THE FIRST CHECHEN WAR (LATE 1980s-1994)

During the last years of the Soviet Union through the early years of the Russian Federation, Chechnya and Dagestan showed the greatest renaissance of Islam and nationalism among all the peoples of the Northern Caucasus. With Soviet ideological control beginning to disappear, most people in the region revived their sense of religious, ethnic, and cultural identity, which had existed before the USSR. One reason for the quick rise in nationalism and the quest for independence was the impact of the tsarist oppression and Stalinist expulsions. Although not the only ethnic group to suffer from ethnic cleansing by the Romanov Empire or Soviet Russia, the Chechen leadership of the early 1990s consisted of figures who were born into or raised in exile in Kazakhstan—and bore a grudge.²²

In the early 1990s, the socio-economic situation in the Soviet Union/Russia and the Northern Caucasus sharply deteriorated, undermining the hopes for a peaceful and prosperous post-Soviet future within the post-communist Russian Federation. The chaotic disintegration of the Soviet Union led to the independence

of 14 republics and to the creation of the Russian Federation under the leadership of Boris Yeltsin. Because of the breakup of the Soviet Union, Moscow witnessed the loss of its empire, including regions that had a geo-strategic value, and were considered to be legitimately under Russian control due to decades spent to conquer them. President Boris Yeltsin and the majority of Russian elites, including liberals and nationalists, believed that further losses of Russian territory to secession of various national-territorial autonomous republics could bring about the disintegration of the Russian historic core. Needing to preserve what was left of the "Motherland," Yeltsin could not afford to yield independence to any rebel territory. His famous phrase "take as much sovereignty as you can carry away" applied to lands willing to negotiate disagreements patiently and peacefully, such as Tatarstan, not the rebel Chechnya.²³ Thus, Russia's approach to post-Soviet Chechnya has been a mix of modern strategic goals of state preservation and resistance to centrifugal processes, together with obsolescent military tactics of overwhelming, imprecise firepower, and ham-handed counterinsurgency, with roots dating back to the Caucasus wars of the 18th and the 19th century.

Around the time of the dissolution of the Soviet Union, former Soviet Air Force General Dzhokhar Dudayev, an ethnic Chechen, became the President of the Autonomous Republic of Chechnya, which remained a part of the new Russian Federation. He was elected President on October 27, 1991, gaining 90.1 percent of the votes, although his opponents accused him of falsifying the results.²⁴ Upon witnessing the independence of former Soviet satellites in Eastern Europe and Soviet republics, some of them smaller than Chechnya, Dudayev declared Chechnya independent

as the Chechen Republic of Ichkeria immediately upon his election in 1991.²⁵

With the Chechen declaration of independence and the Russian resistance, both sides reverted to an active state of hostility. On November 8, Yeltsin issued a decree declaring a state of emergency in Chechnya. In 1992, Russia and the Chechen separatists held several rounds of fruitless talks dedicated to the normalization of the relations. The year 1993 can be characterized by the Kremlin's confrontation with the rebellious anti-Yeltsin Parliament, making integration impossible. After a period of a de facto Chechen independence in 1991-1994, in the fall of 1994, Yeltsin and his administration refocused on the North Caucasus. In December 1994, Moscow re-invaded Chechnya.

THE FIRST CHECHEN WAR (1994-1996)

The conditions at the beginning of the first Chechen war were similar to many cases of decolonization worldwide. The metropolis was weakened by internal strife, while the peripheral elite desired to shake loose the imperial chains. Relations between Chechnya and Russia were contentious. Svante E. Cornell points out that the Chechen military elite were not interested in a negotiated dialogue with Moscow to create a compromise that would allow Chechnya to live in peaceful coexistence within the Russian Federation.²⁶ In fact, other Muslim-majority regions like Tatarstan, Bashkortostan, and many of the North Caucasian republics managed to come to agreements with President Yeltsin on their constitutional status.²⁷ Several reasons can explain this difference. First, compared to the other Russian republics, Chechnya's population is highly

homogenous. According to the 2002 census, the share of Chechens was 93.5 percent.²⁸ In contrast, only 52.9 percent of the population of Tatarstan were Tatars and almost 40 percent were Russians. Similarly, in Bashkortostan, the largest ethnic group in 2002 was the Russians (36.1 percent), followed by the Bashkirs (29.5 percent) and Tatars (25.4 percent). Russians in Dagestan constituted only 4.7 percent of the population in 2002. However, the population of Dagestan does not have a majority ethnic group, but instead is comprised of several main nationalities, such as the Avars (29.4 percent), Dargyns (16.5 percent), or Kumiks (14.2 percent). It was more difficult for the non-Russian population of Tatarstan, Bashkortostan, and most other republics of the Russian Soviet Federative Socialist Republic (RSFSR) to organize strong movements for independence since they did not have a dominant ethnic group as a secessionist support base.

Second, Chechen separatists were supported by outside forces. According to a Russian source, foreign mercenaries from 15 countries fought the Russian federal forces in the first Chechen war.²⁹ In the second Chechen war of 1999–2000, the number of the countries represented rose to 52. In 2000, the number of foreign mercenaries reached 600–700 people. Third, the Chechen leadership was set against any deal with Russia. In his last interview, former Russian defense minister Pavel Grachev discusses how neither he nor Dudayev wanted war.³⁰ Grachev says Dudayev must have reacted (by declaring independence) because Moscow flatly refused to talk to him and in such a situation, the Chechen leadership and nation would reject Dudayev's inaction. Finally, many members of Chechnya's new leadership, such as Colonel Aslan Maskhadov, who succeeded Dudayev after being

killed by the Russian military in 1996, were subjected to Stalin's ethnic cleansing or were born in Kazakhstan and lived many years in exile, bearing understandable grudges.³¹

The majority of the Chechen elite believed that independence was the sole option and that their people could live freely and peacefully only if they had a clean break from Russia.³² This enduring political philosophy among Chechens was very similar to their unwillingness to compromise with imperial Russian forces, beginning with the first invasions in the 18th century, and to their refusal to acquiesce to Russia's occupation ever since. The Stalinist expulsions in the 1940s and the attempted eradication of Islam in the region only confirmed what Chechens believed for centuries. The Russians could not be relied upon to protect them and to ensure their freedom to live how they wished.

Following this series of failures, Moscow intensified its efforts. The Russian military leadership misinterpreted the Dudayev government's lack of engagement with pro-Moscow Chechens as a weakness or a haplessness on the part of the separatists. They did not realize, according to Ilyas Akhmadov and Miriam Lansky, that Chechens were hesitant to kill each other in fear that this would spark blood feuds and vendettas between Chechen clans that had plagued the nation centuries before.³³ Vendettas are a part of the tribal culture of the Caucasus Mountains.

In part, because of this miscalculation, Russian forces assumed that any incursion into the capital, Grozny, would be easy and incur minimal Russian casualties. They were wrong. For the November 1994 ill-fated invasion, the Federal Counterintelligence Service had assembled elite tank squadrons for an attack on Grozny. Chechen forces ambushed them with ease

and took many Russian soldiers as prisoners. This failure sparked criticism of then-Defense Minister Pavel Grachev, who had famously said that he would capture Grozny with one paratroop battalion in 2 hours.³⁴ He later justified his statement by noting that it would have been possible providing that he could fight by all rules of warfare, meaning the availability of unlimited aviation, artillery, etc. In such a case, he claimed, the remaining rebel fighter bands could have been destroyed or captured with one airborne battalion. However, this was an ex-post-facto justification.

After 2 months of initial engagement, the Russian Army conquered most of Chechnya and forced the separatists to flee into the southern mountains, where they regrouped.³⁵ Despite Dudayev's assassination in April 1996 by a Russian precision-guided missile, Chechen forces successfully recaptured Grozny from the Russians after a few days of fighting, and both sides signed a ceasefire agreement known as the Khasavyurt Accord a few weeks thereafter.³⁶ During this war, the Chechen rebels launched their first terrorist attack and hostage standoff at a hospital in Budyonnovsk in Stavropol Krai. The guerilla commando unit, led by Shamil Basayev, consisted of about 150 Chechen rebels. On June 14, 1995, the terrorists stormed the unguarded hospital and took 2,000 hostages.³⁷ The Russian special forces were called in the following day and the operation to neutralize the rebels was launched on June 17.³⁸ It, however, failed to liberate the hospital completely. On June 18, Prime Minister Viktor Chernomyrdin negotiated with Basayev over the phone and accepted some of the demands of Basayev, including a safe passage to Chechnya. During the siege, 129 people died, and 415 were injured.³⁹ This is the earliest terrorist attack credited to the Chechens and is believed to have

reinvigorated the fight against the Russians.⁴⁰ This is also the largest instance of hostage taking in the Russian territory.⁴¹ The largest hostage taking operation in modern history is said to have happened in Iraq in 1990 when it declared that 21,000 foreigners from member nations of the Gulf coalition would be detained as human shields.⁴²

ASLAN MASKHADOV AND THE INTERWAR PERIOD

In 1997, Colonel Aslan Maskhadov, an ex-Soviet artillery officer who fought valiantly in the first Chechen war, was elected President of the separatist Chechen Republic of Ichkeria. Ordinary Chechens were tired of the war and hoped Maskhadov would be able to find a compromise with Moscow.⁴³ Maskhadov, a talented and successful military commander, however, turned out to be a poor politician. He was a hostage of the interests of influential field commanders such as Shamil Basayev and Salman Raduyev, whose resolve was stronger than Maskhadov's. The centralized economy and social welfare system broke down for good. It was the right of the stronger and the closeness to the sources of financing from Moscow's federal budget that had the ultimate decisive power.

As the President of Ichkeria, Maskhadov continued to think in military terms. He had to choose whether to ally himself with Akhmad Kadyrov, who brought together the opponents of Wahhabism, or Shamil Basayev, who was preparing a military campaign to conquer Dagestan and create a larger state (emirate) under the influence of the Wahhabist ideology. In that respect, the problems of 1990s are reminiscent of those facing Imam Shamil in 1840s. Maskhadov chose

Basayev, backed by the strongest battalions of the Ichkerian military.

During the interwar period, relations between the Chechen separatists and the Taliban thrived.⁴⁴ In 1997 and 1998, Zelimkhan Yandarbiyev and Movladi Udugov, main Chechen terrorist ideologues visited the Taliban-controlled Afghanistan and held meetings with Mullah Mohammad Omar and Osama bin Laden. Konstantin Kosachev, a former head of the State Duma Committee on International Relations, said, "we have reasons to believe that Osama bin Laden was involved in a series of terrorist attacks in our country."⁴⁵

RUSSIA IN THE AFTERMATH OF THE FIRST CHECHEN WAR

Russian society was unprepared for what started as a poorly organized military improvisation and morphed into the first Chechen war.⁴⁶ Due to the lack of understanding of the reasons for the operation, the attitude of the Russian public toward the political leadership that initiated it and the generals that led it was largely negative, and the leadership's credibility hit rock bottom. At a later stage of the war, the public pressured Yeltsin to start negotiations with the rebels.⁴⁷

However, the attitude of ordinary Russians toward the ongoing Chechen conflict kept changing, depending on the latest developments in the war. For instance, in late 1995 after the federal forces failed to achieve a breakthrough, as little as 3.2 percent of the people supported continuing the war, while 51.1 percent supported an immediate withdrawal of the troops.⁴⁸ In November 1999, during the second Chechen war, 62.5 percent supported continuing the war after the federal

forces neutralized Basayev's band and achieved noticeable successes in the republic.⁴⁹

The number of Russian casualties in the first Chechen war was below the threshold that would lead to mass antiwar protests. However, conscription and the deployment of police units from all across the country to fight in Chechnya contributed to a transformation of an initially local conflict into a nationwide one. The return of large numbers of angry and demoralized veterans led to talks about Russia's "Weimar syndrome" in reference to pre-Nazi Germany, where World War I veterans played a significant role in political radicalization.

The military considered itself betrayed by the chaotic actions of the Russian leadership and ostracized by the people. The failure to achieve victory was unexpected by the public, which had gotten used to regarding the Russian military as a formidable force even against Europe and the United States.⁵⁰ Before the start of the war, the supreme military leadership considered the upcoming deployment of troops in Chechnya to be another "peace-keeping" operation (e.g., similar in nature to those in Transnistria).⁵¹

The peace agreement with Chechnya, signed in 1996, became a symbol of defeat and humiliation of Russia—only 4 years after the inglorious abandonment of Afghanistan. Nevertheless, little energy has been spent to learn from the failed Chechen war. One of the possible reasons is that the military leadership was hesitant to admit their defeat and instead chose to play up the story about the betrayal by the politicians.

THE INTERWAR PERIOD IN THE NORTH CAUCASUS (1996-1999)

As the Soviet Union with its internationalist and atheist ideology collapsed, nationalism and religion began replacing the political and spiritual void. While Russians increasingly self-identified as Christian Orthodox Eastern Slavs, their opponents self-identified as Chechens and Sunni Muslims. Dzhokhar Dudayev and his de facto Chechen Government mainly used separatism and independence as the motivating factors in fighting the Russians. Additionally, traditional Sufi Islam was a stimulus that generated separatist attitudes against the Russians. Traditional Sufi Islam was never isolated from the idea of the Chechen nation, nor was it the primary factor that inspired the Chechen forces to fight against the Russians and to die for Chechnya in 1994-1996. After the end of the first Chechen war, however, non-indigenous forms of Islam, such as Salafi/Wahhabi Islam that were far more radical and global in scope, began to enter aggressively into Chechnya and neighboring North Caucasian republics to exploit the desperate socioeconomic situation in the war-torn region.

A significant problem that intensified in the period between the two wars was the Islamization of Chechnya. Although Moscow signed a treaty with Chechnya that called for mutual relations based on the principles of international law, Moscow failed to provide sufficient funds to rebuild Chechen infrastructure damaged or destroyed during the first Chechen war. Social problems resulting from the neglect by Moscow provided a fertile ground for radical Islamic currents, such as Salafism or Wahhabism, to take hold in the republic.⁵²

The political course of acting President Zelimkhan Yandarbiyev in 1996–1997 aimed at rapid Islamization of Chechnya and facilitated the spread of Wahhabism in the republic.⁵³ In order to strengthen Sharia law in Chechnya, he invited Bagauddin Magomedov, a radical Islamist leader active in Dagestan, to Chechnya. In September 1996, Yandarbiyev issued a decree that abolished Russian law, banned civil courts, and introduced an Islamic (Sharia) criminal code, which was essentially copied from that of Saudi Arabia.⁵⁴ Islam was declared an official religion.

Not all leaders in Chechnya welcomed this new course. The Chechen Islamization was opposed primarily by Aslan Maskhadov and Akhmad Kadyrov. Aslan Maskhadov, Prime Minister under Yandarbiyev, did not favor the hasty introduction of Islam as an official religion as he feared that it could lead to a fight for the title of imam, and that the Afghan or Tajik scenarios of a religious war could be repeated in Chechnya. Nevertheless, in his presidential campaign in 1997, Maskhadov, for reasons not entirely clear, used the slogan of creating a “Chechen Islamic state.” He might have wanted to steal a popular topic from his political opponents, or perhaps he believed that the Sharia law was the only way to unify the fractious Chechens under an overarching ideology. On July 25, 1998, Maskhadov organized a congress of the Muslims of the North Caucasus in Grozny. Its participants accused the Salafists/Wahhabists of extremism, intervention in the Chechen political life, and insubordination to the official Chechen authorities. He also called upon the Chechen President to get rid of members of his administration who supported this extremist ideology. The chief mufti of Chechnya, Akhmad Kadyrov, also opposed spreading of Salafism/Wahhabism in

Chechnya. He launched a campaign aimed at discrediting Wahhabism as an alien ideology and its preachers as agents of foreign secret services. Nevertheless, Wahhabism in Chechnya was not eradicated. The Wahhabists de facto allied themselves with other religious radicals, who were proponents of an anti-Russian jihad in the North Caucasus.

The fertile ground for radical Islam also caught the attention of al-Qaeda, which was interested in taking advantage of the situation to expand into new territories. In December 1996, Ayman al-Zawahiri, al-Qaeda's second in command, tried to establish a new base for the organization in Chechnya.⁵⁵ He was arrested in Dagestan and released in 1997. However, the spread of radical Islam was not confined exclusively to Chechnya. In August 1999, rebels under the command of al-Khattab and Basayev invaded two Dagestani regions bordering Chechnya and declared the creation of an Islamic state. In a subsequent Russian military operation, three Wahhabist villages where the radicals had taken hold were destroyed. In the meantime, the territory of Chechnya was targeted by a rocket attack from the federal forces. This invasion of Dagestan led to a full-fledged military operation known as the second Chechen war.

FAILURES ON BOTH SIDES

Russia missed the opportunity to establish a working relationship with moderate nationalists in Chechnya and Dagestan, and, by its highhanded tactics, facilitated the Salafist penetration of Chechnya and North Caucasus. Due to the economic depression in the region and high unemployment, especially high youth unemployment, destabilizing forces ranging from criminal gangs to Islamist terrorists began to establish

safe havens and thrive in interwar Chechnya.⁵⁶ The first Chechen war left Chechnya in a disastrous economic situation in which people had only slim prospects for a bright future. Most of what remained of the economy was controlled predominantly by the secessionist leaders and their gangs. During this period, the main sources of income for Chechnya were oil, drugs, hostages, and federal subsidies from Moscow.

As the Chechen leadership was unable to maintain even the most basic forms of authority outside the city centers, Islamic radicals began establishing their own writ in rural, mountainous regions under the religious guidelines set by radical Islam and sharia law. The Chechen “official” secessionist forces were underfunded, undermanned, and demoralized. One partnership that helped to boost radical Islam in North Caucasus during this period was the relationship between Chechen guerilla commander and emerging military leader of the Islamist movement Shamil Basayev and a Salafi emissary and a Saudi citizen by the nom de guerre Ibn al-Khattab.⁵⁷ The two developed a plan and launched a campaign to unite Chechnya with the North Caucasian republic of Dagestan to the east.⁵⁸ Many other radical Islamists from around the Middle East and the Balkans also flocked to Chechnya. Cornell notes how the Bosnian Islamists who emigrated from the Balkans after the implementation of the Dayton Accords found a new jihad theater for an Islamist Caliphate—this time in the mountains of the Caucasus.⁵⁹

One of the most prominent hostage takers and slave traders was Arbi Barayev. He was also among the cruelest terrorists.⁶⁰ Before joining the separatist movement in 1991, Barayev served in the local traffic police. In 1995, he became a leader of the self-defense

militia in the village of Alkhan-Kala, later to become the commander of the “special Islamic battalion” and a Chechen separatist general. As a slave trader, he is known for having taken hostage a group of NTV journalists in 1997, when this practice started becoming a common occurrence in Chechnya. He also started kidnapping rich Chechens, instead of Russian soldiers, which distinguished him from those who focused on victims from outside of Chechnya.⁶¹ Barayev was by far not the only slave trader. Other known separatist leaders, such as Shamil Basayev, were also involved in hostage taking and the slave trade.

The radical Islamist recruiters found many Chechen recruits among the young war veterans and unemployed who found little hope in a brighter future in the de facto independent Chechen Republic of Ichkeria, where many converted to the Salafi-Wahhabi radical ideology. As the radicals attempted to deny and reject ethnic identity, the recruits reduced their allegiance to Chechen or other Caucasian ethnic identities—as did global Islamists operating from the Philippines and Thailand to Afghanistan, and further to East Africa and the Maghreb (North Africa). Much of the new radicalized forces congregated in southeastern Chechnya near the border with Dagestan and with the Republic of Georgia. They were strategically located in this area because it would be the staging zone for an invasion of Dagestan on August 7, 1999, in attempts to unite Chechnya and Dagestan into an Islamic Caliphate—a religious-military dictatorship ruled by the Sharia law. Basayev and ibn Khattab recruited the fighters necessary to invade from the same area where they established the Islamic Brigade.⁶² However, war fatigue after the previous conflict with Russia, rejection of radicalization by large parts of the population, and

internal divisions within the Chechen Government would make fighting the Russians for the second time far more difficult.⁶³

RUSSIA-CHECHNYA: ROUND TWO

When Yeltsin's handpicked successor, Vladimir Putin, became Prime Minister in the summer of 1999, he was a fierce proponent of forcibly bringing Chechnya into undisputed Russian control. This stance secured him the support of the Russian military as Putin solidified his power during the early period of his presidency. To justify their case for a war, Putin and his colleagues pointed out that the conflict in the North Caucasus had evolved from an internal, separatist insurgency, in which the world mostly refrained from interference or was sympathetic to the rebels, to a struggle against radical Islamism, in which the world should stand with Russia. In addition, Russia began its public-relations campaign to convince its citizens and foreign powers that Chechens and other Muslim Caucasian terrorists were an existential threat to all Russian civilians. Moscow started claiming, not without a reason, that the conflict in the North Caucasus was no longer a local fight for national liberation by the "freedom-loving Chechens" but a terrorist threat to Russians and other ethnic groups.⁶⁴

Unlike the first Chechen war in which Russia had made the first move, the second Chechen war started in August 1999 after terrorist forces led by Shamil Basayev invaded Dagestan from Chechnya in an attempt to unite the two republics. The vision, articulated by al-Qaeda's number two commander, Ayman al-Zawahiri, was to connect Afghanistan with North Caucasus through a Caspian Sea "bridge." Putin and the Russian

military responded with overwhelming force similar to that of the first war.⁶⁵ Devastation, displacement, and civilian deaths were again staggering.

Exact official data on civilian casualties during the Chechen wars is not available. Estimated numbers of victims are based mostly on assessments by nongovernmental organizations (NGOs), but the numbers vary considerably. A conservative estimate of the number of civilian casualties in Grozny alone during the first war is between 25,000 and 29,000.⁶⁶ Various Russian officials provided wide-ranging estimates of casualties. For instance, then Russian Interior Minister Anatoly Kulikov claimed that the number of civilians who lost their lives was below 20,000.⁶⁷ Conversely, Sergey Kovalyov's estimate is around 50,000, and General Aleksandr Lebed spoke about 80,000–100,000 civilians. According to Taus Dzhabrailov, the head of the Chechnya National Council in the mid-2000s, 150,000 to 160,000 people are believed to have died during both Chechen wars, out of whom 75,000 were Chechen civilians.⁶⁸

During the second Chechen war, Russian forces crushed the radical Islamic faction and retook control of Chechnya, thus ending its *de facto* independence. Many of the Chechen leaders were killed in battle. Former President Zelimkhan Yandarbiyev was assassinated on February 13, 2004, by a car explosion in Doha, Qatar. Two Russian diplomats were accused of his murder and sentenced to 25 years in Qatar prison, but after serving 9 months, they were transferred to Russia.⁶⁹ The Russian Ministry of Justice declined to disclose where they are serving the rest of the prison term, which suggests that they were quietly released.⁷⁰ Aslan Maskhadov was killed on May 8, 2005, during a special operation of the FSB, and Shamil Basayev was

killed on July 10, 2006, also during a Russian special operation.

In the second Chechen war, Russia was much more effective in using ethnic Chechen units and intelligence sources against the separatists.⁷¹ Many of them were rather opportunistic “pro-Russian” formations; nevertheless, they greatly contributed to the Russian victory. Their cooperation allowed Moscow to stop negotiating with the separatists and their leaders, and transform the conflict as whole.

GROWTH OF TERRORIST ACTIVITY AND RADICALISM IN THE NORTHERN CAUCASUS SINCE THE SECOND CHECHEN WAR

The end of the active phase of the second Chechen war in 2000 did not end modern political Islam and Islamist terrorism on the Russian territory. The terrorist factions threatening Russia and reaching as far as Boston in 2013 have roots in the Chechen wars as well as in the global “jihadi” movement, as the Tsarnaev brothers’ website demonstrated. In addition, global Islamist factions striving for seizure of political control in Muslim lands and eventual creation of the Caliphate, such as the Muslim Brotherhood and Hizb-ut-Tahrir al Islami (Islamic Army of Liberation) Muslims have decided to commit more resources to Russia, when they saw the successes of Islamist fighters in the North Caucasus.

Having been defeated on the battlefield, Shamil Basayev turned his attention to attacking soft targets outside Chechnya and Dagestan, not for any tactical gain against the Russian military but mainly for the terroristic traumatizing value of such acts. Meanwhile,

within much of Chechnya and neighboring republics, radicals, domestic and foreign, began expanding the terrorist network by establishing Salafi *jamaats* (communities) throughout the region. They took advantage of the unique geography and the desperate socioeconomic conditions that helped to recruit many young locals to commit to their radical movement. Many, therefore, joined the Islamist groups and moved away to isolated areas, escaping the authorities' writ and solidifying their commitment to increase their influence, and plan attacks.⁷²

Moreover, Islamist leaders like Basayev and, later, Doku Umarov, began outlining jihadist manifestos that definitively declared their desire to transform North Caucasus into a Caliphate and a vehicle of the pan-Islamist fundamentalist force fighting against Russians not just for independence but for global jihad.⁷³ The radicals began with the implementation of Sharia law throughout the former Chechen Republic of Ichkeria and in the Salafi *jamaats*, over which their followers had influence outside of Chechnya. After Dudayev was killed and Zelimkhan Yandarbiyev became acting President of Ichkeria in April 1996, the process accelerated.⁷⁴

After the assassination of Shamil Basayev in 2006 by the Russian special forces, the new head of the Caucasus-based Islamist movement, Doku Umarov, established the Caucasus Emirate (Imarat Kavkaz [CE]) based on Sharia and with goals consistent with fundamentalist Wahabbist-Salafist teachings of Islam.⁷⁵ This restatement of Umarov's militant Islamist ideology is important if one is to understand the radical direction in which the North Caucasus insurgency was moving.

CE's initial manifesto declared that its objective was to unite all of the Northern Caucasus into a single

“Caucasus Emirate,” eliminating all the borders separating autonomous republics and defining all ethnic, linguistic, and cultural distinctions as un-Islamic. The whole region was supposed to become one frontline of the global jihad in the name of Allah and against the infidels. In order to achieve this goal, the Islamists not only needed to force Russia to relinquish its control over the region, as had been the demand among separatists for centuries, but they also needed to force the various republics and ethnic groups to renounce any indigenous identity that has been cherished and valued, submitting completely to radical Islamist ideology and command (including the “Amir” Umarov) and join global jihad. Once achieving total control, Umarov and CE would begin to spread their war to the Muslim areas in the Urals, Central Asia, and Siberia—with plans to conquer all of Russia, including the capital, Moscow.⁷⁶

The CE became an Islamist affiliate of the global, al-Qaeda-led movement that operated symbiotically with terrorist cells all across the Middle East and Eurasia. CE and other Northern Caucasus radicals received tactical, financial, and moral support from al-Qaeda and its partners.⁷⁷ For example, Caucasian terrorists benefited from the expertise of al-Qaeda operatives Muhammad al Emirati and Abdulla Kurd, who helped organize operational activities within the region while coordinating with al-Qaeda globally. Though Russian counterterrorist forces killed both of them in April 2011, they advanced CE’s mission to connect with global jihad.⁷⁸ Beyond this relationship, al-Qaeda’s tentacles in the region go back to the 1990s, even before the paradigm of Caucasian rebellion against Russia changed to jihadist. There are many documented instances of al-Qaeda contributing arms, funds, Islamist education,

and access to training camps in Afghanistan and elsewhere, for fighters from the Chechen Republic of Ichkeria. Al-Qaeda's Ayman al-Zawahiri once stated that the North Caucasus represented "one of three primary fronts in the war against the West," and CE's actions attempted to match his rhetoric.⁷⁹

THE SECOND TERROR CAMPAIGN

With the help of foreign jihadi organizations and the infusion of new recruits and radical immigrants from the Balkans, the year 2000 marked the beginning of a new Islamist terrorist campaign against the Russian population, striking targets as far away as Moscow. This was a startling development in comparison with the wars between Russia and Chechnya, as conflicts had remained contained within the Caucasus. The first known case of terrorism as a tactical and a psychological weapon was during the first Chechen war in 1995, when Shamil Basayev executed a large suicide bombing of Russian forces in Chechnya.

Coinciding with the beginning of the second Chechen war, however, Chechen Islamist fighters, led by Basayev, focused on attacking Russian civilians. The earliest major attack in the 2000s was the 2002 Dubrovka theater siege in Moscow, in which 912 people were taken hostage.⁸⁰ Russian forces killed all the terrorists, as well as around 130 hostages. This Russian anti-terrorist operation is considered by many to be a failure of the special services. In 2006, survivors and relatives of the victims prepared a 200-page report called "Nord-Ost. An Unfinished Investigation," in which they claimed that the special services did not do everything they could to save as many people as possible, and accused them of negligence.⁸¹

The most controversial aspect of the operation was the usage of a new type of nerve gas, which is believed to be responsible for the deaths of the terrorists and the 130 hostages. It appears that the authorities did not deploy medical teams near the Dubrovka Theater, amass ambulances before storming the target, nor brief the medical personnel on nerve agent use and ways to treat the patients. While hardly a surprise, given the poor state of Russian military medicine and the health system in general, this was a failure of emergency medicine of enormous proportions. There have been numerous demands to release the information about the gas, the composition of which continues to remain secret.⁸² However, Aleksey Filatov, a former Alpha special forces unit fighter, justified using the gas by claiming that, because the gas was used, the terrorists failed to detonate the bomb they had with them, in which case the number of casualties would have significantly exceeded the number of the those killed by the gas.⁸³

Several years earlier, in September 1999, a series of apartment bombings shattered the peace in Russia.⁸⁴ Four apartment buildings were blown up in cities across Russia: two of them in Moscow, one in Buynaksk (Dagestan), and one in Volgodonsk (Rostov Oblast). Around 300 people lost their lives, and many more were wounded. Separatists from North Caucasus are believed to have committed the terrorist attacks as an act of revenge for Moscow's military operations in Chechnya and Dagestan. There are many, however, who challenge the veracity of this version of events.

Since the beginning of the 21st century, Basayev and Umarov perpetrated a series of terrorist attacks across Russia. The most notable examples are the attack on a school in Beslan in 2004, the St. Petersburg-Moscow passenger train in late 2009, the Moscow metro in 2010,

and on Domodedovo Airport in Moscow in January 2011. The U.S. Department of State and the United Nations (UN) recognized these attacks as committed by the Chechen terrorists, seeking to establish the Caucasus Emirate.⁸⁵

On September 1, 2004, a group of 17 terrorists took hostage around 1,100-1,400 people in an elementary school in the town of Beslan in North Ossetia.⁸⁶ The FSB-led operation to release the hostages remains controversial. On September 3, the FSB forces undertook a counter-attack, which resulted in a chaotic exchange of fire between them and the terrorists.⁸⁷ The efforts of the FSB and the supporting troops suffered from a lack of coordination and were further complicated by many armed civilians voluntarily trying to help free the hostages. One of the reasons for the poor coordination is allegedly the fact that the FSB forces expected only 354 hostages to be in the school, which resulted in choosing a wrong strategy for the attack.⁸⁸ They also did not set a perimeter, which initially prevented them from sealing the school and later allowed some of terrorists to escape. Because of the operation, 335 hostages were killed. How many hostages died by the hands of the terrorists, how many as a result of the FSB using heavy weaponry, and how many due to the mistakes of the rescue team remains unclear.⁸⁹ Quite possibly, it is classified.

In the Northern Caucasus, CE and other radicals continued their guerrilla war against Russian forces at a staggering pace that earned Russia a dubious distinction of having one of the highest rates of terrorist attacks per year in the world.⁹⁰ In effect, over the past decade, the North Caucasus has become an ungovernable area and a part of global “jihad” space. Local Islamist organizations are now capable of launching their

own operations with some level of cooperation with global terrorist networks, as arrests in Europe and the Boston Marathon attack have demonstrated. More intelligence activities will be necessary to understand better the multiple facets of this cooperation.

RUSSIAN COUNTERTERRORISM AND COUNTERINSURGENCY IN THE 21ST CENTURY

Russia's porous borders and insufficient surveillance throughout the region, inadequate local knowledge of the counterintelligence forces assigned to North Caucasus from around the country, lack of linguistic skills of the regular military and special forces, and corruption of local authorities and economic development programs severely affected Russian anti-terrorist and counterinsurgency responses. The North Caucasus, in addition to terrorism and Islamism, has become a hotspot of drug and human trafficking that further funded terrorist activities and solidified the relationships between the Caucasus and drug havens of Afghanistan and Tajikistan and other global trafficking networks. Chechen and other North Caucasus networks have become significant narcotics distribution platforms for Russia, and Eastern and Western Europe.

Doku Umarov's Caucasian Emirate has become a formidable coalition of various decentralized *jamaats* that, despite Russian efforts so far, has avoided having its network substantially exposed and liquidated. Just like the Islamist radicals elsewhere, CE members have successfully hidden from scrutiny and entrenched themselves to continue operations. They have managed to transform much of their historic grand strategy of regional guerilla warfare aimed at achieving

independence from Russia into one that includes underground tactics and urban warfare, while invoking radical ideology that had little connection with the history of the region. However, given the enormity of the international jihadi goals, it is too early to tell whether CE will manage to achieve their objectives domestically and regionally, and whether their comrades-in-arms will succeed globally. Although Umarov was subsequently killed by the Russian forces and the CE has been taken over by the Islamic State in Iraq and Syria (ISIS), it is probably the same people who moved from the CE to ISIS and the threat they pose has not gone away.

RUSSIAN COUNTERTERRORIST AND COUNTERINSURGENCY RESPONSES AND STRATEGIES SINCE 2000

After the successful recapture of Dagestan and Chechnya by Russia in 2000, Russian military and interior ministry units in North Caucasus have become primarily a counterterrorist force. However, they lacked appropriate training, equipment, and motivation. With Putin ascending to the presidency in the same year, Russian counterterrorist operations maintained “search and destroy” tactics to stop the growth of radical Islam in the Northern Caucasus. Yet, since 2000, Moscow and Grozny have not fully eliminated the terrorist threat in the North Caucasus.

As Sergey Markedonov from the Center for Strategic and International Studies (CSIS) notes, the main failure of the Russian counterinsurgency in the North Caucasus is the absence of a relevant, well-analyzed, and coherently implemented strategy. Practically all operations, even the successful ones, look like belated

responses. Another problem is the correct identification of the enemy. Russian officials, including at the highest level, tend to refer to the separatists and terrorists as “bandits.”⁹¹ However, terrorism is not criminal activity, it is a political violence, Markedonov says. Thus, it is necessary to understand the ideological roots of the current Caucasian terrorists and their political goals. Since the late 1990s, terrorism under nationalist and self-determination slogans has been replaced by an Islamist one. However, even today Russian officials continue to speak about the “Chechen separatists.”⁹²

Meanwhile, the situation in the North Caucasus no longer resembles the dynamics of the Chechen conflict. The insurgency in the region is not centered in Chechnya any more. Rather, every year since 2005, the recorded incidence of violence in Chechnya has been less than, or equal to, the levels of violence observed in the neighboring republics of Ingushetia and Dagestan. Ideologically, the Russian Government does not propose any attractive alternatives to militant Islam. Instead, it is restricting its policy by supporting the state-sponsored Spiritual Board of Muslims (*Dukhovnye Upravleniya Musul'man* [DUMs]), while underestimating the role of unofficial Muslims who are not subordinated to DUMs and not engaged in the terrorist activity and jihadist propaganda.

Russian intelligence, counterterrorism, and strategic communities developed and implemented policies that, at times, were actually causing radical Islam to grow in the region. Outside their military and intelligence networks, Moscow has mainly relied on the subsidiary government in Chechnya led by, first, mufti Akhmad Kadyrov, and after his death in the bombing during the celebration of the Russian V-E day on May 9, 2004, his son Ramzan.⁹³ Kadyrov the younger managed

to bring the violence in the republic under control. However, he has a dubious human rights record, ranging from alleged killings of prominent Russian journalists who openly criticized his practices, to hunting down and killing his opponents abroad. A notable case of such killing is the assassination of Umar Israilov in Vienna, Austria, on January 30, 2009.⁹⁴ Israilov was a former bodyguard of Kadyrov, but later turned into an open critic of Kadyrov's regime in Chechnya and fled to Austria, where he was given asylum.

The dynamics of Chechen society have, so far, worked to Kadyrov's and Moscow's advantage, because most of the Chechens still want to identify as being loyal to the *Vaynach* (Chechen) nation, rather than to adopt radical Islam and erase their discrete identity. Kadyrov has had a great impact on local society through repression of terrorist activity and promoting the "Chechen national identity," which coexists and complements, not supplants religious practices. In what could be seen as an improvement in Russian-Chechen relations, the promotion of Chechen culture by the Kadyrov regime after the second Chechen war is one of the few policy planks on which Russian and Chechen leaderships have actively collaborated. In order to promote further the government's version of Chechen society over the radical ideology and to increase his own popularity, Kadyrov legalized polygamy (while it is illegal under Russian law and the constitution).⁹⁵ What Kadyrov did in the hope of improving the situation in Chechnya and decreasing the influence of radical Islamists in the area, with the blessing from Moscow, appears to have been more effective than Moscow's actions.⁹⁶

The fact that the current Russian counterinsurgency strategy is far from being fully successful is demonstrated by many news accounts detailing the

ongoing violence in the region. A striking example was on June 23, 2013, 38 special police officers were killed in clashes in southwestern Chechnya.⁹⁷ Another two police officers were killed in the Shatoy district on June 29. Another drawback of the policy of the Kremlin, Malashenko believes, is that it is not able to prevent the emergence of a new generation of Mujahideen. Effective measures against their rise would inevitably have to include a dialogue with the opposition and undertaking practical measures to combat the ubiquitous corruption in the region—something that the current elites are unwilling and unlikely to do.

EFFECT OF NORTHERN CAUCASUS ON BROADER RUSSIAN, AMERICAN, AND GLOBAL SECURITY

With Islamist terrorist activities challenging Russia's control in North Caucasus, Moscow risks having the insurgency undermine Russian strategic goals of reestablishing itself as a leading global power. With the advent of the 2014 Winter Olympic Games and the 2018 Soccer World Cup in Russia, Putin and the ruling elite were eager to use these and other Russian-hosted global events to improve the country's image, attract global investment, and to secure the world's confidence that Russia is a 21st-century global leader akin to China, India, and Brazil.

The origins of contemporary Islamic radicalism in Dagestan go back to the early 1990s, when the Soviet Union was collapsing and opening its borders to the outside world.⁹⁸ A key figure in organizing the radical Islamist movement in Dagestan was Bagauddin Kebedov. He was a devout supporter of Salafism and harshly criticized other, more moderate forms of Islam,

such as Sufism. In 1990, he became one of the leaders of the Islamic Party of Revival and subsequently a leader of a radical wing of Dagestani Salafists, later named the Islamic Jamaat of Dagestan (IJD). The Salafi ideology enjoyed wide support among the population due to the deepening economic crisis, the simplicity and understandability of the Salafi ideas, and the spirit of brotherhood in the organization. The IJD gradually became the most influential Salafi group in Dagestan.

The protracted conflict in Chechnya was also one of the reasons that facilitated spreading of this radical ideology in Dagestan. The 1996 withdrawal from Chechnya was a sign of Russian military weakness. It encouraged the Dagestani radicals to form closer ties with their brothers in faith. Many of them went to fight in Chechnya or joined local terrorist organizations. In addition, the Chechen conflict encouraged people who saw the war as a source of income to join the radicals.

The antigovernment and anti-Russian sentiments among the members of the IJD were encouraged by the counterproductive policy of local Dagestani authorities. They lacked a cohesive strategy to contain the IJD and instead chose to irritate it by police action. In particular, the local Dagestani authorities decided to launch what they considered a "total war" against the radical extremist groups. However, the ranks of Wahhabists were often filled by ordinary Muslims with no previous ties to extremists. Moreover, the "hunt on Wahhabists" was frequently used as a means to solve personal and political disputes, and for personal benefits of corrupt law enforcement and petty politicians. Using excessively harsh methods only motivated many Islamist activists to seek revenge or to go to Chechnya to fight.

In 2012, the situation in Dagestan became critical.⁹⁹ Around three-quarters of all terrorist acts committed in the North Caucasus for the first 9 months of 2012 took place in Dagestan. Despite the minimal chances of their goal to establish an Islamic quasi-state for success, the Salafists/Wahhabists enjoy considerable support from the Dagestani population. Similar to the early 1990s, people continue to be dissatisfied with an untenable economic situation, including unemployment, corruption, poor healthcare, and the lack of future prospects. However, the religious yearning and its violent manifestation also attract Dagestanis into the ranks of terrorists.

The situation in Ingushetia is similar to that in Dagestan. The influence of Islamic radicals in Ingushetia remains high despite regular capture and killing of radical terrorists and field commanders.¹⁰⁰ Salafi/Wahhabi ideology and organizations have a strong potential for the same reasons as in Dagestan. Moscow declared the counterterrorist operation in Chechnya completed in 2009; however, terrorist activity was more easily spread to the neighboring republics, including Ingushetia.¹⁰¹ Terrorist attacks continue to take place. The ranks of Wahhabists continue to be filled mainly by Ingushetia's youth that does not see other ways of self-realization.

Similarly, in Kabardino-Balkaria nationalism of the local ethnic communities dominates over civil values.¹⁰² However, radical Islamist terrorists are active in Kabardino-Balkaria. For instance, on January 6, 2013, three suspected terrorists were killed by the Russian security services.¹⁰³ They are believed to have been preparing terrorist attacks against local churches during the celebration of the Orthodox Christmas. At least since 2009, clashes between rebels and the Russian security

services in the republic have been a weekly, if not a more frequent, occurrence.¹⁰⁴ There are also reports that hundreds of Sunni fighters have joined radical forces in Syria to fight the Alawi regime of President Bashar al-Assad and his Shia allies, such as Hezbollah and Iran.¹⁰⁵ Russia no doubt applauds the exodus of the troublemakers despite its support of the Assad regime: if killed or wounded in Syria, these extremists are “off the streets” in the Caucasus.

Nevertheless, Russian experts interviewed in the course of this research agree that expectations of a general massive uprising in the North Caucasus against Moscow’s rule are not realistic. Local uprisings are possible in case the local administrations commit political mistakes, giving the insurgents an excuse to organize and act against the Kremlin.¹⁰⁶ In addition, there are numerous disputes within the region itself, such as inter-ethnic tensions between Ossetians and the Ingush or land disputes between different groups in Dagestan and Kabardino-Balkaria, let alone inter-republican border disputes (e.g., between North Ossetia and Ingushetia, and between Ingushetia and Chechnya).¹⁰⁷ Other examples of tensions include intra-Islamic disputes, such as those between Sufi Muslims, who consider their tribal lands to be a part of their ethno-national heritage, and the ultra-religious Salafis, who exhibit higher differing levels of radicalism, and are violent followers of global jihad.

The partial remedy to deprive the rebels of an excuse to lure new Mujahideen seems to be economic and social development of the region, attractive secular policies, and the presence of a strong alternative to the radical brand of Islam. If corruption and unemployment are dealt with successfully and if the youth are given a viable and attractive alternative, the rebel

leaders will lose their appeal, and the whole insurgency movement may gradually fade. Instead, Moscow is trying to discredit radical Islamism as something that is foreign to “traditional Islam” and Caucasian ethnic traditions—a strategy that has so far had little effect. Paradoxically, this strategy has been unsuccessful despite the fact that even unofficial Muslims not subordinated to the state-sponsored Islamic structures are rather critical and suspicious of the “Caucasus Emirate” activity.¹⁰⁸ The local population in many cases fails to view federal institutions in the region as credible; these institutions are lacking the perception of legitimacy by the locals. In the meantime, the North Caucasus is gradually turning into a de facto “inner abroad” for Moscow.

In order for Moscow to achieve successes in fighting the North Caucasian separatists, its policy needs to include measures aimed at integrating at least some of the radicals into the Russian society. In other words, the resolve of the Kremlin to neutralize the separatists at all costs needs to be combined with “soft power” addressed to the citizens.¹⁰⁹ Russia needs to be able to distinguish a terrorist act from a gangland slaying (very often the highest representatives of the Russian state identify terrorists as “bandits”). These measures must be accompanied by a relentless anticorruption strategy (because “privatization” of the local power provokes social protest and radicalism), creation of new personnel for the republican level of public service (well educated beyond the Caucasian republics), and promotion of alternative versions of Islam (regional Caucasus or European Islam for example).

As North Caucasus is an energy hub adjacent to the Black and Caspian Seas, sabotage of energy infrastructure remains a constant concern among Russian energy

firms upstream and downstream. As Russia strives to connect new pipelines, like South Stream from Novorossiysk on the Black Sea to Turkey and Europe, and continue to build up Krasnodar Krai's ports as energy-logistics hubs, Islamist terrorists in the North Caucasus will continue to focus on any opportunity to strike Russian energy trade and civilian population in a devastating way.

For the United States, the winding down of operations in Afghanistan and Iraq will change the U.S. focus on Central Asia and the Caucasus and its threat assessment of North Caucasus terrorism. Terrorist networks from Russia will find new opportunities to undermine Russian and U.S. allies and the peace that the United States fought so hard to secure. Past reports show that Russian citizens from North Caucasus have been active in combat and in drug trafficking in Afghanistan and South Asia.¹¹⁰ North Caucasus terrorists also greatly benefited from the drug trade originating from Afghanistan.¹¹¹

After the U.S. withdrawal from Afghanistan, the old ties are likely to revive. The global financing of terrorism is vital in helping to grow the North Caucasus Islamist network. The radical Islamists in the North Caucasus continue to challenge the Russian federal authorities thanks to the availability of outside sources of financing. As far back as 2000, Khatib and websites supportive of al-Qaeda have solicited financial support for North Caucasus groups, even before CE was established.¹¹² Through the global "charity" called Benevolence International Foundation set up in Saudi Arabia, Chechen groups received vast amounts of money from the Middle East, before the international terrorism finance arm was shut down in Russia, the United States, and elsewhere.¹¹³ In 2010, a charity known as

“Sharia4Belgium” and which was sending money to CE, was thwarted, as well as numerous websites based in Europe that solicited and laundered funds that ultimately reached Islamic terrorist groups.¹¹⁴

Not only fraudulent “charities” in Europe were exposed as money-laundering schemes for terrorists. Some North Caucasus cells have been uncovered also in Europe. In the Czech Republic, a cell associated with CE, containing one Chechen and a couple of Dagestanis, among other Islamic radicals from Eastern Europe, was apprehended in April 2011. The French police found five Chechen nationals, including an imam, in a cell that made and stored components for making bombs.¹¹⁵ Based on the nature of these findings, North Caucasus terrorism in Europe appears to target civilians and government officials regardless of what declaration Umarov or others might produce.

Finally, as already mentioned, Chechens and other extremist Sunni fighters from North Caucasus have made their way via Turkey to Syria, fighting for the Sunni rebels against the Assad regime—most notably ISIS. Hundreds of Islamists from the North Caucasus, notably Chechnya, have joined the rebellion against Syrian President Bashar al-Assad, even as Kadyrov states no Chechens are actively engaged in Syria.¹¹⁶ A senior Azerbaijani official who requested anonymity, estimated the number of North Caucasians fighting in Syria against Assad to be in the “hundreds.” He complained that Russia is not doing much to stop migration of its young men to fight a “jihad” in Syria because Russian authorities prefer “their” extremists to be killed far away from its borders.¹¹⁷ On the other hand, if trained and battle-hardened in Syria, these fighters may come home and cause a lot of trouble for the pro-Moscow administrations of their homeland. As seen in Europe,

Syria, Afghanistan, and in North America (Boston), the North Caucasian threat is already global in nature; and active cooperation among international intelligence and law enforcement organizations is required in order to prevent this region from inflicting any more harm on American and international interests.

OUTLOOK AND RECOMMENDATIONS

While Kadyrov and Putin continue to eviscerate terrorists, their networks, and their supporters, Russian society as a whole has made little progress in establishing an inter-ethnic harmony and inter-religious détente between the ethnic Russian Orthodox majority and the Muslim North Caucasus peoples throughout the country. The Russian elites' and Slavic Orthodox majority's attitudes toward the Caucasus vary. Some believe that Russia needs to stop pouring multi-billion dollar subsidies from the federal budget into Kadyrov's republic and other Caucasian autonomous republics—hence, the famous slogan formulated by opposition leader Alexei Navalny: “Enough feeding the Caucasus.” Eventually, ethno-religious enmity and economic disparity may lead to political independence of the regions or parts thereof. Many prominent establishment figures, such as late Prime Minister Yevgeny Primakov; former Chairman of the Accounts Chamber of Russia and Prime Minister, Sergei Stepashin; former head of Rosatom and Prime Minister, Sergey Kiriyenko; and former Moscow mayor Yury Luzhkov essentially agree that Russia should abandon North Caucasus and build a new border on the Terek River. Yet, others still consider the Caucasus to be an aggravating problem that should be suppressed, rather than resolved. Whichever the approach, Russia is unlikely

to give up North Caucasus unless forced to by the aforementioned factors.

Most of society, even if not openly protesting, holds peoples from the North Caucasus in low esteem, refusing to see them as “Russians” and often limiting them to low-skilled, menial jobs such as farmer’s market traders in the major cities. Yet, the demographic dynamic suggests that the number of Russian citizens with Muslim roots is growing, and that they occupy increasingly important socio-economic positions. For example, Rashid Nurgaliyev, Russia’s Interior Minister from 2003 to 2011; Elvira Nabiullina, former Minister of Economic Development and Trade and current head of the Russian Central Bank; and, many journalists, business people, government officials, and law enforcement personnel are Muslims.

Putin, in having to struggle with economic, political, and social problems throughout all of Russia, cannot afford to risk the Northern Caucasus reappearing as a national crisis flashpoint since it may lead to partial or even full loss of government control over the country. The Kremlin, therefore, has little choice but to continue its robust anti-terrorist policies with auxiliary economic and political support.

CONCLUSION

The North Caucasus still faces a precarious future after the region has survived two wars in the last 20 years, as well as economic collapse and the resulting devastation. The growth of radical Islam and the danger of global jihad impeding on the region’s outlook imperil not only Russia but also the security of the U.S. homeland and allies. What was a nationalist struggle against Moscow has mutated over a short

period into a global menace that already has spread to the Middle East, Central Asia, Europe, and the United States. The issue of the fighters from the North Caucasus involved in the Syrian conflict is urgent and has to be solved, since these people may pose a major threat to civilian population upon their return.

ENDNOTES - CHAPTER 18

1. "Designation of Caucasus Emirate," Washington, DC: Office of the Spokesman, U.S. Department of State, May 26, 2011, available from <https://2009-2017.state.gov/r/pa/prs/ps/2011/05/164312.htm>, accessed July 24, 2018.

2. "Terakt v Kizlyare i Pervomayskom 9-18 yanvarya 1996 goda" ("A Terrorist Attack in Kizlyar and Pervomayskoye on January 9-18, 1996"), Caucasian Knot, January 11, 2017, available from <http://www.kavkaz-uzel.ru/articles/218853/>, accessed February 5, 2013.

3. "Doku Umarov prikazal modzhahedam ne atakovat grazhdanskoye naselenie Rossii" ("Doku Umarov Ordered the Mujahideen not to Attack the Russian Civilian Population"), Korrespondent, February 3, 2012, available from <http://korrespondent.net/video/world/1315131-doku-umarov-prikazal-modzhahedam-ne-atakovat-grazhdanskoe-naselenie-rossii>, accessed March 5, 2013.

4. For more information on the background of the Russian/Soviet-North Caucasus conflicts, see Ariel Cohen, "A Threat to the West: The Rise of Islamist Insurgency in the Northern Caucasus and Russia's Inadequate Response," *Heritage Foundation Backgrounder*, No. 2643, Washington, DC: The Heritage Foundation, March 26, 2012, pp. 1-7, available from <http://www.heritage.org/research/reports/2012/03/a-threat-to-the-west-the-rise-of-islamist-insurgency-in-the-northern-caucasus>, accessed March 10, 2013.

5. Moshe Gammer, "'Proconsul of the Caucasus': A Re-examination of Yermolov," *Social Evolution & History*, Vol. 2, No. 1, March 2003, available from <http://www.sociostudies.org/journal/articles/140480/>, accessed March 10, 2013.

6. Robert F. Baumann, "Russian-Soviet Unconventional Wars in the Caucasus, Central Asia, and Afghanistan," *Leavenworth Papers*, No. 20, Ft. Leavenworth, KS: The Combat Studies Institute, U.S. Army Command and General Staff College, April 1993, p. 9, available from https://history.army.mil/html/books/107/107-1/CMH_Pub_107-1.pdf.

7. Vladimir Degoyev, *Imam Shamil: prorok, vlastitel, vojn (Imam Shamil: a Prophet, a Ruler, and a Warrior)*, Moscow, Russia: Russian Panorama, 2001, p. 131.

8. "Ichkeriyskoye srazhenie" ("The Ichkerinsky Battle"), Caucasian Knot, February 15, 2011, available from <http://www.kavkaz-uzel.eu/wiki?path=%D0%98%D1%87%D0%BA%D0%B5%D1%80%D0%B8%D0%BD%D1%81%D0%BA%D0%BE%D0%B5+%D1%81%D1%80%D0%B0%D0%B6%D0%B5%D0%BD%D0%B8%D0%B5>, accessed March 1, 2013.

9. G. G. Lisicyna, "Vospominaniya neizvestnogo uchastnika Darginskoy ekspeditsii 1845 g." ("Memoirs of an Unknown Participant of the Dargo Expedition"), *Journal "Zvezda" ("Star")*, No. 6, 1996, pp. 181-191, available from http://www.vostlit.info/Texts/Dokumenty/Kavkaz/XIX/1840-1860/Neizv_uc_darg_exp/text1.htm, accessed March 5, 2013.

10. N. N. Velikaya, "Kazaki Vostochnogo Predkavkazya v XVIII-XIX VV." ("Cossacks of Eastern Ciscaucasia in the 17th-19th Centuries"), published online, 2001, available from <http://www.cossackdom.com/book/bookkazak2.html>, accessed March 15, 2013.

11. Svante E. Cornell, "The 'Afghanization' of the North Caucasus: Causes and Implications of a Changing Conflict," in Dr. Stephen J. Blank, ed., *Russia's Homegrown Insurgency: Jihad in the North Caucasus*, Carlisle, PA: U.S. Army War College, Strategic Studies Institute, October 2012, p. 125.

12. Zurab Papaskiri, "Nekotoryye aspekty imperskoy politiki Rossii na Kavkaze" ("Some Aspects of the Russian Imperial Policy in the Caucasus"), July 11, 2012, archived page available from https://web.archive.org/web/20160706093118/http://rus.expertclub.ge/portal/cnid__12208/alias__Expertclub/lang__ru/tabid__2546/default.aspx, accessed February 8, 2013.

13. S. M. Dmitrievskiy, B. I. Gvareli, and O. A. Chelysheva, "Mezhdunarodnyy Tribunal Dlya Chechni" ("An International Tribunal for Chechnya"), *Nizhniy Novgorod*, 2009, p. 68.

14. D. Gakayev, "Grazhdanskaya voyna v Checheno-Ingushetii"/Ocherki politicheskoy istorii Chechni (XX vek) ("The Civil War in Checheno-Ingushetia"/Essays on the Political History of Chechnya [20th Century]), May 14, 2012, available from <http://checheninfo.ru/12438-grazhdanskaya-voyna-v-checheno-ingushetii.html>, accessed February 8, 2013.

15. Victor A. Shnirelman, *Byt Alanami: intellektualy i politika na Severnom Kavkaze v XX veke (To Be Alans: Intellectuals and Politics in the North Caucasus in the 20th Century)*, Moscow, Russia: Novoe literaturnoe obozrenie, 2006, p. 38.

16. Yu. V. Yeremina, "Otechestvennaya istoriya. Uchebno-prakticheskoye posobiye dlya studentov vsex spetsialnostey i vsex form obucheniya" ("Domestic History. Educational and Practical Handbook for Students of all Specializations and all Forms of Training"), Moscow, Russia: Moscow State University of Economics, Statistics and Computer Science, 2010.

17. "Deklaraciya prav narodov Rossii, 2(15) noyabrya 1917 g." ("Declaration of the Rights of the Peoples of Russia, November 2(15), 1917"), available from <http://www.hist.msu.ru/ER/Text/DEKRET/peoples.htm>, accessed February 8, 2013.

18. Cohen, "A Threat to the West," p. 5.

19. "Remembering Stalin's Deportations," BBC News, February 23, 2004, available from <http://news.bbc.co.uk/2/hi/3509933.stm>, accessed February 8, 2013.

20. Alexander Janda, Nobert Leitner, and Mathias Vogl, *Chechens in the European Union*, Vienna, Austria: Austrian Integration Fund, 2008, p. 13.

21. Zeyno Baran, S. Frederick Starr, and Svante E. Cornell, "Islamic Radicalism in Central Asia and the Caucasus: Implications for the EU" *Silk Road Papers and Monographs*, Uppsala, Sweden: Central Asia-Caucasus Institute Silk Road Studies Program, July 2006, available from <https://www.silkroadstudies.org/>

publications/silkroad-papers-and-monographs/item/13100-islamic-radicalism-in-central-asia-and-the-caucasus-implications-for-the-eu.html, accessed July 24, 2018.

22. Cornell, p. 127.

23. Mr. Thomas Riisager and Henry D. Sokolski, *Beyond Nunn-Lugar: Curbing the next Wave of Weapons Proliferation Threats from Russia*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, April 2002, p. 65.

24.A. V. Cherkasov and O. P. Orlov, "Khronika vooruzhen-nogo konflikta" ("A Chronicle of the Armed Conflict"), Memorial, n.d., available from <http://www.memo.ru/hr/hotpoints/chechen/itogi/xp90.htm>, accessed May 20, 2013.

25. Cohen, "A Threat to the West," p. 5.

26. Cornell, pp. 128-129.

27. See "Agreement between the Government of the Russian Federation and the Government of the Republic of Tatarstan," Kazan, Republic of Tatarstan: Kazan State University, May 20, 2013. See also "Relations between the federal centre and Tatarstan," Republic of Tatarstan, Archives of Official server 1997-2011, n.d., available from http://1997-2011.tatarstan.ru/index.html@0&node_id=836.html, accessed July 30, 2018.

28. "Naselenie po natsionalnosti i vladeniyu russkim yazykom po subyektam Rossiyskoy Federatsii" (The Population of the Russian Federation in Territorial Units by Nationality and Russian Language Fluency), available from http://www.perepis2002.ru/ct/doc/TOM_04_03.xls, accessed May 20, 2013.

29. V. Zaytsev, "Nayomniki v Chechne" ("Mercenaries in Chechnya"), *Journal "Ogonyok"* ("Little Fire"), No. 11 (5170), March 21, 2011, available from <http://www.kommersant.ru/doc/1604045>, accessed May 20, 2013,

30. Alfred Kock and Petr Aven, "Posledneye intervyyu Pavla Grachova: 'Po Belomu domu, beglymi, ogon!'" ("The Last Interview of Pavel Grachev: 'Running Fire at the White House!'"), *Forbes*, October 16, 2012, available from <http://www.forbes.ru/>

sobytiya/lyudi/167386-poslednee-intervyu-pavla-gracheva-po-belomudomu-beglymi-ogon?page=0,1, accessed May 20, 2013.

31. Ariel Cohen, "After Maskhadov: Islamist Terrorism Threatens North Caucasus and Russia," *Heritage Foundation Backgrounder*, No. 1809, Washington, DC: The Heritage Foundation, April 1, 2005, available from <http://www.heritage.org/research/reports/2005/04/after-maskhadov-islamist-terrorism-threatens-north-caucasus-and-russia>, accessed April 3, 2013.

32. Cornell, p. 127.

33. Ilyas Akhmadov and Miriam Lanskoj, *The Chechen Struggle: Independence Won and Lost*, New York: Palgrave MacMillan, 2010, pp. 12-13.

34. "Vzyat' Groznyy silami odnogo parashyutno-desantnogo polka" ("To Capture Grozny with One Airborne Regiment"), *RIA Novosti*, April 17, 2011, available from http://ria.ru/history_tochki/20110417/365652355.html, accessed April 3, 2013.

35. Cornell, p. 130.

36. Ibid.

37. David Zucchini, "Chechen commando chief recounts Budyonnovsk raid, events that preceded it," *The Baltimore Sun*, July 16, 1995, available from http://articles.baltimoresun.com/1995-07-16/news/1995197017_1_basayev-budyonnovsk-chechen-war, accessed June 10, 2013.

38. "Khronologiya zaxvata zalozhnikov v gorode Budyonnovsk. Spravka" ("A chronology of the Hostage Taking in the Town of Budyonnovsk. Overview"), *RIA Novosti*, June 10, 2011, available from http://ria.ru/history_spravki/20110610/386717117.html, accessed April 3, 2013.

39. "Budyonnovsk, June 1995. Chronicles of a deadly terrorist attack," *Sputnik*, June, 18, 2010, available from <https://sputniknews.com/photo/20100618159475084/>, accessed July 24, 2018.

40. Cornell, p. 131.

41. "Zakhvaty zalozhnikov. Kak eto bylo v mire" ("Hostage Taking. How It Was in the World"), *Izvestiya*, October 24, 2002, available from <http://izvestia.ru/news/268869>, accessed April 3, 2013.

42. *The Greenwood Encyclopedia of International Relations*, Vol. I. F-L, Westport, CT: Greenwood Publishing, 2002, Digitized on June 26, 2008, p. 73.

43. D. Ivanov, "Aslan Maskhadov proigral voynu" ("Aslan Maskhadov Lost the War"), *Lenta.Ru*, March 9, 2005, available from <http://lenta.ru/articles/2005/03/08/maskhadov/>, accessed April 3, 2013.

44. I. Yegorov, "Al-Kaida v Rossii" ("Al-Qaeda in Russia"), *Rossiyskaya Gazeta*, May 2, 2011, available from <http://www.rg.ru/2011/05/02/alkaida-site.html>, accessed May 7, 2013.

45. *Ibid.*

46. Lev Gudkov, "Pokornoe bessilie rossiyskogo obshchestva" ("Obedient Powerlessness of the Russian Society"), *BBC Russian News*, December 1, 2004, available from http://news.bbc.co.uk/1/hi/russian/russia/newsid_4059000/4059361.stm, accessed May 12, 2013.

47. "Pervaya Chechenskaya voyna 1994-1996" ("The First Chechen War of 1994-1996"), December 12, 2009, archived page available from https://web.archive.org/web/20100310082949/http://history-of-wars.ru/war_hrono/343-pervaya-chechenskaya-voyna-1994-1996.html, accessed May 21, 2013.

48. Alexei Malashenko and Dmitri Trenin, "Vremya yuga. Rossiya v Chechne, Chechnya v Rossii" ("The time of the south. Russia in Chechnya and Chechnya in Russia"), Moscow, Russia: Carnegie Endowment for International Peace, 2002, pp. 47-48, available from <http://carnegieendowment.org/files/pub-35864.pdf>, accessed May 22, 2013.

49. *Ibid.*

50. "Chechnya i Sostoyaniye Rossiyskoy Armii" ("Chechnya and the State of the Russian Military"), *MFIT.ru*, n.d., archived page available from <https://web.archive.org/web/20130127211304/>

http://www.mfit.ru/defensive/vestnik/vestnik6_1.html, accessed April 5, 2013.

51. Steven E. Miller and Dmitri Trenin, "Vooruzhonnye sily Rossii: vlast i politika" ("Russia's Armed Forces: Power and Politics"), Cambridge, MA: MIT Press, 2005, p. 61, available from https://www.amacad.org/multimedia/pdfs/publications/books/russian_mil_russian.pdf, accessed June 18, 2019.

52. Liz Fuller, "Why Is The North Caucasus An Unholy Mess?" Radio Free Europe/Radio Liberty, August 15, 2011, available from http://www.rferl.org/content/north_caucasus_why_is_it_such_an_unholy_mess/24297384.html, accessed July 15, 2013.

53. Alexei Kudryavtsev, "'Vakhabbism': problemy religioznogo ehkstremizma na Severnom Kavkaze" ("Wahhabism': Problems with Religious Extremism in the North Caucasus"), Lulea, Sweden: Institute for Central Asian and Caucasian Studies (CA&CC) Press, September 2000, available from <http://www.ca-c.org/journal/cac-09-2000/14.Kudriav.shtml>, accessed April 5, 2013.

54. Ilya Maksakov, "Shariatskoye pravo po-chechenski" ("Sharia Law in Chechen"), *Nezavisimaya Gazeta*, February 29, 2000, available from http://www.ng.ru/specfile/2000-02-29/14_shariat.html, accessed April 5, 2013.

55. Leon Aron, "Chechnya. New Dimensions of the Old Crisis," Washington, DC: American Enterprise Institute, February 1, 2003, available from <http://www.aei.org/publication/chechnya/>, accessed July 24, 2018.

56. Cohen, "A Threat to the West," p. 5.

57. Akhmadov and Lanskoj, pp. 123-124.

58. Cornell, p. 133.

59. *Ibid.*, pp. 133-134.

60. Vladimir Ardaev, "Kem byl Arbi Barayev" ("Who Was Arbi Barayev"), BBC Russian News, June 25, 2001, available from http://news.bbc.co.uk/1/hi/russian/news/newsid_1407000/1407433.stm, accessed June 1, 2013.

61. Gennady Troshev, *Moya vojna. Chechenskiy dnevnik okopnogo generala (My War. The Chechen Diary of a Trench General)*, Moscow, Russia: Vagrius Publishing House, 2001, available from http://www.lib.ru/MEMUARY/CHECHNYA/troshev.txt_with-big-pictures.html, accessed June 1, 2013.

62. Cornell, p. 135.

63. Akhmadov and Lansky, pp. 173-176.

64. Cornell, p. 138.

65. Cohen, "A Threat to the West," p. 5.

66. Alexander Cherkasov, "Demografiya, poteri naseleniya i migracionnye potoki v zone vooruzhonnogo konflikta v Chechenskoj Respublike. Kritika istochnikov" ("The Book of Numbers: Demographics, Civilian Losses and Migration Flows in the Conflict Zone in the Republic of Chechnya. A Critique of the Sources."), Stavropol, Russia: *Kniga chisel, Memorial*, September 2001, available from <http://www.memo.ru/hr/hotpoints/N-Caucas/misc/numbook.htm>, accessed February 22, 2013.

67. See reference note "[2] Civil and military casualties of the wars in Chechnya," in "An Overview, Human Rights Violations in Chechnya," n.d., article archived page available from <http://web.archive.org/web/20070821110222/http://www.hroc.net:80/main.htm>, and reference note archived page available from <http://web.archive.org/web/20070821154629/http://www.hroc.net/htmls/references.htm>, accessed February 22, 2013.

68. Maria Mstislavskaya, "Vysshaya chechenskaya arifmetika" ("Higher Chechen Arithmetic"), Lenta.Ru, August 16, 2005, available from <http://lenta.ru/articles/2005/08/16/losses/>, accessed February 22, 2013.

69. "Osuzhdyonnyye za ubiystvo Yandarbiyeva vernulis v Rossiyu" ("Those Sentenced for Killing Yandarbiyev Returned to Russia"), *Rossiyskaya Gazeta*, December 23, 2004, available from <http://www.rg.ru/2004/12/24/katar-anons.html>, accessed February 2, 2013.

70. "Russian Justice Ministry knows, Yandarbiyev's killers serve sentence in Russia, doesn't know where," *Regnum*, December 14, 2005, available from <http://www.regnum.ru>.

71. Interview with Sergey Markedonov, Visiting Fellow, CSIS, July 20-24, 2013.

72. Gordon M. Hahn, "The Caucasus Emirate Jihadists: The Security and Strategic Implications," in Stephen J. Blank, ed., *Russia's Homegrown Insurgency: Jihad in the North Caucasus*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, October 2012, p. 29, available from <http://ssi.armywarcollege.edu/pubs/display.cfm?pubID=1116>, accessed July 24, 2018.

73. Liz Fuller, "Chechnya: Resistance Leadership Affirms Readiness for Peace Talks," Radio Free Europe/Radio Liberty, July 14, 2006, available from <http://www.rferl.org/content/article/1069862.html>, accessed June 10, 2013.

74. Hahn, "The Caucasus Emirate Jihadists," p. 3. (The *Jamaat* reference comes from Cohen, "A Threat to the West," p. 7.)

75. Cohen, "After Maskhadov," p. 6.

76. Hahn, "The Caucasus Emirate Jihadists," p. 10, endnote 21, cited to "Amir Doku Abu Usman o bin Ladene, Imarate Kavkaz I poteryakh modzhakhedov," Kavkaz tsentr, May 17, 2011.

77. Cohen, "A Threat to the West," p. 7.

78. Cohen, "A Threat to the West"; "Top Al Qaeda Envoy Killed in Chechnya," RT, May 4, 2011, available from <http://rt.com/news/qaeda-terrorism-killed-chechnya/>, accessed April 28, 2013.

79. Cohen, "A Threat to the West," p. 7; Rachel Ehrenfeld and Jonathan Halevi, "Al Qaeda's Global Reach," New York: American Center for Democracy, Economic Warfare Institute, May 7, 2013, available from <http://econwarfare.org/al-qaedas-global-reach/>, accessed July 24, 2018.

80. "ESPCh: operatsiya na Dubrovke byla provedena s narusheniyami" ("The Operation in Dubrovka Was Conducted with Violations"), BBC Russian News, December 20, 2011, available from <http://www.bbc.co.uk/russian/>

russia/2011/12/111220_strasbourg_court_nord-ost.shtml, accessed April 28, 2013.

81. “‘Nord-Ost. Neokonchennoye rassledovanie’—doklad pod takim nazvaniem predstavili segodnya obshhestvennosti rodstvenniki pogibshikh i postradavshiye pri terakte na Dubrovke” (“‘Nord-Ost. An Unfinished Investigation’—A Report under this Name Was Released Today by Relatives of the Victims and by those Injured”), *Echo Moskvy*, May 15, 2006, available from <http://www.echo.msk.ru/news/322802.html>, accessed April 28, 2013.

82. “Minzdrav oyavil sostav gaza iz ‘Nord-Osta’ gosudarstvennoy taynoy” (“The Ministry of Health Has Declared the Composition of the Gas Used in ‘Nord-Ost’ a Government Secret”), *Lenta.Ru*, December 11, 2002, archived page available from <https://web.archive.org/web/20130509145745/http://lenta.ru/terror/2002/12/11/gas/>, accessed July 24, 2018.

83. “Veteran Alf: primeneniye gaza pri shturme ‘Nord-Osta’ bylo opravdano” (“An Alpha Veteran: Using Gas at Freeing ‘Nord-Ost’ Was Justified”), *RIA Novosti*, October 26, 2012, available from <http://ria.ru/society/20121026/906935884.html>, accessed April 28, 2013.

84. “Sentyabrskiye vzryvy 1999 goda” (“September 1999 Blasts”), *RIA Novosti*, September 12, 2011, available from http://ria.ru/history_comments/20110912/436010306.html, accessed April 28, 2013.

85. Cohen, “A Threat to the West,” p. 6; United Nations Security Council, “Narrative Summaries of Reasons For Listing: QI.U.290.11. Doku Khamatovich Umarov,” Security Council Committee established pursuant to resolution 1267 (1999) concerning Al-Qaida and the Taliban and Associated Individuals and Entities, March 10, 2011, archived page available from <https://web.archive.org/web/20110514193846/www.un.org/sc/committees/1267/NSQI29011E.shtml>; U.S. Department of State, Office of the Coordinator for Counterterrorism, “Designation of Caucasus Emirate Leader Doku Umarov,” Washington, DC: U.S. Department of State, June 23, 2010, available from <https://www.state.gov/j/ct/rls/other/des/143564.htm>; U.S. Department of State, Bureau of Counterterrorism and Countering Violent Extremism, “Designation of Caucasus Emirate,” Washington, DC: Department of State,

May 26, 2011, available from <https://2009-2017.state.gov/r/pa/prs/ps/2011/05/164312.htm>.

86. "Khronika zakhvata zalozhnikov v shkole nomer 1 g. Beslan. Spravka" ("A Chronicle of the Hostage Taking in School No. 1 in Beslan. Overview"), *RIA Novosti*, September 1, 2009, available from <http://ria.ru/society/20090901/183228293.html>, accessed May 7, 2013.

87. Roman Osharov, "'Golos Beslana': Narod pomnit . . . A vlasti?" ("The Voice of Beslan: The People Remember . . . And the Authorities?"), *Voice of America*, September 3, 2012, available from <http://www.golos-ameriki.ru/content/beslan-russia/1500567.html>, accessed May 7, 2013.

88. "Doklad komissii Torshina razocharoval 'Materey Beslana'" ("The Report of the Torshin Commission Has Disappointed the 'Mothers of Beslan'"), *Lenta.Ru*, December 28, 2005, available from <http://lenta.ru/news/2005/12/28/beslan1/>, accessed May 7, 2013.

89. Fedor Maksimov, "Beslan obyasnili vzryvtexicheski" ("Beslan Explained through Blasts"), *Kommersant*, September 4, 2006, available from <http://www.kommersant.ru/doc/702175/>, accessed May 7, 2013.

90. Cohen, "A Threat to the West," p. 6; National Consortium for the Study of Terrorism and Responses to Terrorism, "Background Report: Suicide Attack at Moscow Airport," College Park, MD: National Consortium for the Study of Terrorism and Responses to Terrorism, January 24, 2011, available from http://www.start.umd.edu/sites/default/files/files/publications/br/Background_Report_2011_January_Moscow_Airport.pdf.

91. Meeting with Vladimir Putin, Valdai Club, Moscow, Russia, September 2004 (author's notes).

92. Sergey Markedonov, personal interview, July 23, 2013.

93. "Adhmad Kadyrov's Death Marked the End of an Era," *Sputnik*, May 13, 2005, available from <https://sputniknews.com/analysis/2005051339977649/>, accessed July 25, 2018.

94. C. J. Chivers "Investigation Links Critic's Death to Top Chechens," *The New York Times*, April 25, 2010 available from http://www.nytimes.com/2010/04/26/world/europe/26chechen.html?pagewanted=all&_r=0, accessed June 3, 2013.

95. Cohen, "A Threat to the West," p. 8.

96. Tom Parfitt, "The Battle for the Soul of Chechnya," *The Guardian*, November 22, 2007, available from <https://www.theguardian.com/world/2007/nov/22/chechnya.tomparfitt>.

97. Mairbek Vatchagaev, "Large-Scale Clash with Insurgents Reported in Chechnya in Bamut," *Eurasia Daily Monitor*, Vol. 10, Iss. 127, July 11, 2013, available from <https://jamestown.org/program/large-scale-clash-with-insurgents-reported-in-chechnya-in-bamut-2/#.Ueyk5W008mU>, accessed July 11, 2013.

98. D. V. Makarov, "Nacionalnye otnosheniya. Radikalizaciya islama v Dagestane: Vozmozhnosti i predely dzhixadizma" ("Ethnic Relations. Radicalization of Islam in Dagestan: Possibilities and Limits of the Jihadism"), 2004, available from <http://ecsocman.hse.ru/data/2011/01/12/1214867256/Makarov.pdf>, accessed March 20, 2013.

99. Alexei Malashenko, "Kuda idyot Dagestan" ("Where Is Dagestan Going"), November 19, 2012, available from <http://carnegieendowment.org/2012/11/19/Kyda-udem-Dagestan/elzq>, accessed March 22, 2013.

100. Tanzila Chabieva and Michail Roshin, "Konflikt pokoleniy v ingushskom isleme: sufii i salafity" ("A Conflict of Generations in Islam in Ingushetia: the Sufis and the Salafis"), *Caucasus Times*, April 29, 2013, available from <http://caucasustimes.com/ru/konflikt-pokolenij-v-ingushskom-islam/>, accessed July 25, 2018.

101. "Konec 'rezhima antiterroristicheskoy operacii' v Chechne" ("The end of 'regime of anti-terrorism operation' in Chechnya,)" available from http://www.rfi.fr/acturu/articles/112/article_3026.asp, accessed July 15, 2013.

102. Anton Krivenyuk, "Cherkesskiy mir mezhdu nacionalizmom i islamskoy globalizaciey" ("The Circassian World between Nationalism and Islamic Globalization"), *Caucasus Times*, May

2, 2013, available from <http://caucasustimes.com/ru/cherkesskij-mir-mezhdu-nacionalizmom-i/>, accessed July 25, 2018.

103. "NAK: ubityye v Kabardino-Balkarii boeviki sobiralis sovershit terakty na Rozhdestvo" ("National Antiterrorist Committee: Rebels Killed in Kabardino-Balkaria Were Preparing to Commit Terrorist Attacks on Christmas"), *Caucasus Knot*, January 7, 2013, available from <http://www.kavkaz-uzel.ru/articles/218308/>, accessed March 15, 2013.

104. "Kabardino-Balkariya: khronika vzryvov, obstrelov i teraktov" ("Kabardino-Balkaria: A Chronicle of Blasts, Firings and Terrorist Attacks"), *Caucasus Knot*, originally published July 23, 2010, available from <http://kabardino-balkaria.kavkaz-uzel.ru/articles/172027/>, accessed June 15, 2013.

105. Andrei Rezchikov and Ekaterina Eermakova, "Chechenskiy sled doshel do Asada" ("The Chechen Trace Has Reached Assad"), *Vzglyad.Ru*, November 27, 2012, available from <http://vz.ru/politics/2012/11/27/609131.html>, accessed April 1, 2013.

106. A. Malashenko, e-mail message to author, July 20, 2013.

107. Interview with Sergey Markedonov, Visiting Fellow, CSIS, July 20-24, 2013.

108. *Ibid.*

109. *Ibid.*

110. Gordon M. Hahn, "Getting the Caucasus Emirate Right," Washington, DC: Center for Strategic and International Studies, Russia and Eurasia Program, August 2011, p. 4, available from http://csis.org/files/publication/110930_Hahn_GettingCaucasusEmirateRt_Web.pdf, accessed June 3, 2013.

111. "Afghan drug traffic aids terrorists in N. Caucasus — drugs official," *Sputnik*, June 9, 2010, available from <https://sputniknews.com/world/20100609159354900/>, accessed July 25, 2018.

112. Hahn, "Getting the Caucasus Emirate Right," p. 5.

113. *Ibid.*

114. Ibid., pp. 10-11.

115. Hahn, "The Caucasus-Emirate Jihadists," pp. 41-42.

116. Thomas Grove and Mariam Karouny, "Militants from Russia's North Caucasus join 'jihad' in Syria," Reuters, March 6, 2013, available from <http://www.reuters.com/article/2013/03/06/us-syria-crisis-russia-militants-idUSBRE9251BT20130306>, accessed June 15, 2013.

117. Interviews with government officials, Baku, Azerbaijan, May 2013; sources requested anonymity.

CHAPTER 19. RUSSIA'S MILITARY PRESENCE IN CENTRAL ASIA: STRATEGY, CAPABILITIES, AND THREATS

Sébastien Peyrouse

Contemporary Central Asia can only be understood by looking at the place that Russia still occupies in it. Strategically as much as politically, the region comprises a key piece of the great-power image that the Kremlin is fostering. Russia is a former colonizer whose cultural values and language are still in broad circulation; moreover, since the beginning of the 2000s, flows of migrant labor from Central Asia have reshaped cultural relations between the two spaces. The Kremlin provides political support to the established Central Asian regimes; is an important economic player, particularly in energy; and, is still a key strategic partner for soft and hard security issues.

Nevertheless, for the Central Asian states, the Kremlin's influence is not without its risks—above all, economic and social ones, since an enduring downturn on Moscow's side would have notable consequences on its principle allies and over the region as a whole. As attested by the economic crisis that has beset Russia since 2014, and military and strategic ones since, despite its declarations, Russia has to date been unable to make a show of its commitment in cases of destabilization. Despite this inability, the Kremlin is striving to maintain the Central Asian states' strong military dependency on it, and deliberately thwarts the states' attempts to develop more balanced defense policies, in particular with Western states.

This chapter will concentrate on this last point about the strategic and military side of things.

What is the impact of Russian policy over the defense sectors of Central Asian states 25 years after the collapse of the Warsaw Pact? Despite their independence, are these states able to reduce Russia's hold over the region? Moscow has not hesitated to use a carrot-and-stick approach to political matters, providing financial aid and logistic support to the region's defense sector. However, it also exercises political pressures (threats to restrict the flow of migrants) and economic ones to achieve its strategic aims. For their part, the Central Asian states, who are militarily, economically, and socially weak, need a reliable partner, or one deemed to be so—one that is ready to get involved in cases of domestic or international conflict.

However, the alternatives to Russia remain limited: China, given its major economic influence in the region, generates a lot of apprehension there. The Central Asian regimes have also been very cautious about their involvement with other states, especially Muslim or South Asian partners (Iran and Pakistan), for fear of Islamic political influence. Neither is there another regional military power (such as India or Turkey) that would be ready to provide a guarantee for the security of the region in case of destabilization. Finally, the states of Central Asia do not hide their disappointment with the West: they condemn American and European pressures to enact democratization and political reforms, which they denounce as interference. Moreover, they are critical of the limited material and financial support they have received, and in return fear Russia's—and also China's—pressurizing, notably as the former has done its utmost to restrict Western military presence in the region in recent years.

This chapter will present Central Asian stakes in Moscow's military and security strategy and,

reciprocally, the consequences of this partnership on the Central Asian states, as well as their ability to control it. In the first part of this chapter, the Kremlin's goals in the region, and how it has managed to recuperate some of its influence lost in the 1990s are discussed. A second part will analyze the form of Russian-Central Asian cooperation, both bilateral and multilateral, and the consequences of Russian military presence in the region. The third part discusses the responses of the Central Asian states to Russia's accrued presence. Russia's modalities reveal, as will be discussed, the multiple ambiguities of an ex-big brother that these states adjudge at once as an ally and a threat, particularly in the wake of the Ukrainian crisis and the serious slowdown of the Russian economy. The conclusion looks at the West's capacity to limit Russia's security dominance in Central Asia.

STAGES OF RECONSIDERATION OF RUSSIAN STRATEGY IN CENTRAL ASIA¹

Russian global geopolitical interests have substantially changed since the end of Cold War, and the Kremlin is still in the process of adjusting its perceptions of the international scene, with difficulties in identifying its long-term partners and competitors.² The ambivalent and sometimes hesitant character of Russian foreign policy remains particularly pronounced in Central Asia because Moscow's long-term challenges there are complex.

During a first phase extending from the fall of the Soviet Union to the second half of the 1990s, the Kremlin remained without any defined policy in relation to Central Asia. The elites in power during the government of Yegor Gaidar (1992-1993) thought that

Russia's strategic interests lay in the West. Views of Russia as an empire and the Soviet totalitarian experience were decried for "diverting" Russia from the European path for several centuries. These assumptions thus ran counter to any potential desires Moscow may have had to maintain control over Central Asia, considered corrupt and symbolic of the Leonid Brezhnev administration's stagnation, one that would slow Russia's march toward Europe.³

The Russian domestic context changed rapidly and led to the birth of a second phase of Russian foreign policy in the second half of the 1990s. The Russian state was weak and without resources, unable to finance an army, and exerted a diminished influence on the international scene.⁴ In 1996, Boris Yeltsin tried to revive Russia's great power status and replaced the Foreign Affairs Minister at the time, Andrei Kozyrev, with Yevgeny Primakov, a major Soviet diplomat whose political ascension to the post of Prime Minister (1998-1999) symbolized the Kremlin's political turnaround.⁵ First, Primakov called for a balanced policy to continue the development of good neighborly relations with the West, in particular with the European Union (EU), while simultaneously stressing cooperation with Asian countries, particularly China and India.⁶ He reiterated that Russia should be recognized as a great power, and must resume its role as linchpin of the post-Soviet space.

Moreover, the Kremlin soon began to concern itself more overtly with the deterioration of the situation on its southern borders. Despite the peace accords of 1997 that put an end to the civil war in Tajikistan, Central Asia seemed to be under increasing threat. After Kabul, Afghanistan, fell under the control of the Taliban in 1996, drug trafficking grew in the region, and

in 1999 and 2000, Uzbekistan and Kyrgyzstan were in direct danger from the Islamic Movement of Uzbekistan (IMU).⁷ Russia, however, had relinquished control of the former external borders of the Soviet Union. In 1999, the Russian Army ceded border management operations along the borders with China, Afghanistan, and Iran to the national armies of Kyrgyzstan and Turkmenistan, remaining present only in Tajikistan, which it left in 2005.⁸ Despite the more resolute discourse on its natural role in post-Soviet space, at the end of the 1990s, the Kremlin's room to maneuver in its former territory was drastically reduced. On the institutional level, Russia could only operate bilaterally, thanks to the signing of friendship and cooperation treaties with the Central Asian states, but could not pursue any effective multilateral policies. The lack of financing allocated by member countries to the Commonwealth of Independent States (CIS) structures revealed the absence of any collective political will.

The third phase of Russian foreign policy was characterized by the coming to power of Vladimir Putin.⁹ Relations with the two Central Asian republics most resistant to Russian influence, Turkmenistan and Uzbekistan, improved slowly.¹⁰ The three other states, which sought to pursue balanced policies between Russia and the West, also showed their receptiveness to the message of assertiveness coming from the Kremlin. The events of September 11, 2001, in the United States gave Moscow increased resolve in its will to re-engage in Central Asia. The U.S. military presence in Uzbekistan and Kyrgyzstan, respectively at Karshi-Khanabad and Manas, although approved by Putin, pushed the Kremlin to increase its ambitions in the region.¹¹

THE CURRENT DRIVERS OF RUSSIA'S STRATEGY IN CENTRAL ASIA

Although the weight of history still influences the definition of certain Russian strategies, the Kremlin's perceptions of its global security evolved throughout the 2000s. Contemporary evolutions are forcing Moscow to readjust its view of Central Asia according to more forward-looking stakes. Russia may have regained influence in the 2000s, but it will face new domestic and international challenges in the coming decades, and has redefined its policy toward and inroads into Central Asia.

Security remains one of the main drivers that shape Russia's involvement in Central Asia. Although the only Central Asian state that shares borders with Russia is Kazakhstan, Moscow sees the security of its southern borders as a question of domestic security. The 4,254 miles of the Russo-Kazakh border in the heart of the steppes, are nearly impossible to secure, and require that clandestine flows be better controlled downstream along the former southern border of the Soviet Union.¹² Moscow therefore thinks of Central Asia as a buffer zone with a "South" increasingly subjected to strategic uncertainty and nontraditional threats.

The new *Conception of National Security for 2020*, adopted in May 2009, reflected changes within the international security environment.¹³ The definition of enemies and dangers has also changed.¹⁴ Even if some prisms inherited from the Cold War still shape Russian perceptions, today Moscow tries to take into account three categories of danger: nontraditional threats (failing states, drug trafficking, and migration), human security (education and health), and strategic

uncertainties (potential rapid changes in the domestic or international orientation of its neighbors). Within this prism, the “South” combines both nontraditional threats and strategic uncertainty. The “South” is the zone where overlapping domestic and foreign stakes are strongest, where the notion of border is the least pertinent, and where both conventional and non-conventional security stakes are at play.

This perception of increased threats has been reinforced by number of factors that have weakened the Central Asian states. These include the 2008 economic crisis, the multiplication of allegedly Islamist incursions in the Tajik Rasht Valley in 2009 and 2010, the Kyrgyz change of power and interethnic riots in Osh in 2010, the Arab Spring in 2011, and the re-reading of the Central Asian situation those events have implied. Most of the Central Asian states have to contend with considerable domestic problems (weakened political institutions, social development at risk due to economies in crisis, and food insecurity) and with serious interstate tensions over water and energy sharing.

Drastically reshaping Russia’s levels of influence after the Western withdrawal from Afghanistan in 2014 and the forthcoming succession crisis in Uzbekistan and Kazakhstan have become Moscow’s main objectives in the years to come. Any destabilization in the weakest (Kyrgyzstan or Tajikistan), or the most unpredictable (Uzbekistan) states could have immediate repercussions in Russia. These include Islamist infiltration in the Volga-Ural region and the North Caucasus; an increase in the inflow of drugs reaching the Russian population already widely targeted by drug traffickers; a loss of control over the export networks of hydrocarbons, uranium mines, and strategic sites in the military-industrial complex; a drop in trade exchanges;

and, an uncontrollable surge of flows of migrants, particularly refugees.¹⁵ That these repercussions are often overestimated is of little importance: myths and phobias are a part of decision-making processes.

The Kremlin had attested its unflinching support for all the Central Asian regimes. Their authoritarian hardening contributed to a loosening of ties with the United States and the EU, as well as to a decreasing involvement of international donors. The “color revolutions” in Georgia in 2003, Ukraine in 2004, and Kyrgyzstan in 2005, provoked a feeling of encirclement by the United States and thus rapprochement with Moscow. Presidents Nursultan Nazarbayev, Islam Karimov, and Emomali Rahmon felt they were potential targets and sought support from the Kremlin.¹⁶ The Russian-Central Asian alliance reached its apogee during the Uzbek authorities’ repression of the Andijan insurrection of May 13, 2005. While Western countries condemned the regime for its immoderate use of force and rejected the official theory of an Islamist coup d’état, Russia—and China—came unhesitatingly to the rescue of Islam Karimov.¹⁷ The struggle against the so-called Islamic terrorism is a powerful factor: the leitmotiv of the “war against terror” made it possible to weave new links between leadership circles and to claim that the Central Asian states and Russia were both victims of internationalized Jihadism. The former supported the latter in its war in Chechnya in exchange for the Kremlin’s support for their fight against the IMU, and the Hizb ut-Tahrir, as well as their secular political opposition. Russia has therefore positioned itself as a strategic partner of the Central Asian governments, ready to collaborate with all of them, even Tashkent, Uzbekistan, and Ashgabat, Turkmenistan, when they ask for it. This common security denominator is expressed as

significant military cooperation in a multilateral and bilateral framework.

RUSSIAN MILITARY ENGAGEMENT IN CENTRAL ASIA

After the collapse of the Soviet Union, Moscow sought to preserve a shared security framework under the auspices of the CIS. Anxious to preserve their recently acquired independence, the Central Asian republics were nonetheless reluctant about getting involved in Russian-dominated organizations. Most of the initiatives in the strategy and security sector launched under CIS auspices thus remained a dead letter. Only the Anti-Terrorism Center (ATC) and the Collective Security Treaty Organization (CSTO) are properly functional. The ATC continues to provide Central Asian security services with training and offers joint exercises called “South Anti-Terror,” administered by the Russian FSB (the former KGB, the Federal Security Service). However, today, Russo-Central Asian multilateral collaborations are mainly geared toward the CSTO.¹⁸

Created in 2002, based on the CIS Collective Security Treaty (CST) signed on May 15, 1992, the CSTO elaborates collective strategies to combat terrorism, transnational dangers, and drug trafficking, and is the only regional institution with a genuine military dimension.¹⁹ Joint military exercises, carried out annually in one of the member countries, simulate terrorist attacks (*rubezh*). In 2016, the CSTO planned to conduct intelligence-based exercises in Tajikistan and the operation “Illegal 2016,” which targets illegal migration, and would provide mechanisms for sharing information on migrant levels in Central Asia and the possible security implications of the migrations.²⁰ The Collective

Rapid Reaction Force for Central Asia, which is the only one capable of intervening in real time, is comprised of Kazakh, Kyrgyz, Russian, and Tajik units, and totals around 4,000 men. This force is supposed to respond to threats from conventional military or nonstate groups, as well as to emergencies due to natural catastrophes, and to engage in peacekeeping operations. Since 2005, CSTO revived cooperation between Russian and Central Asian military industrial complexes, and allowed for the preferential sale of Russian military materiel to Central Asian states at domestic market prices.

However, bilateralism dominates in the domain of security. Since the early 1990s, Russia has held joint military exercises with Kazakhstan, Kyrgyzstan, and Tajikistan; exercises with Uzbekistan only began in 2005 and stopped rapidly; and none has been organized with the Turkmen Army. Although there are no longer any Russian troops in Turkmenistan, Kyrgyzstan, or Tajikistan, bilateral consultations are still conducted on border securitization with the last two countries. In addition, joint operations are organized that focus on drug trafficking and illegal migrations, such as those undertaken with Kazakhstan on the Caspian Sea and along the length of the Chinese border. The FSB border service plays an advisory role and provides technical assistance in Kyrgyzstan and Tajikistan. Russian troops, who helped both countries create their own air defense systems in the 1990s, continue to train their air force personnel.²¹ The Soviet legacy has also enabled Moscow to help train a majority of Central Asian military personnel.²² Several hundred high-level Central Asian officers have received diplomas from Russian military academies, which also serve as models for the Central Asian military schools, and the two Russian military bases in Kyrgyzstan and Tajikistan offer specialized on-site training.²³

Since the start of the 2000s, Russia has supplied the Central Asian states with large quantities of military equipment, either by selling it at preferential prices, notably to Kazakhstan and Uzbekistan (the only two states in the region able to finance their armies), or by supplying the materiel in return for the rental of sites (Kyrgyzstan and Tajikistan). Russia therefore equips the Central Asian armies with weapons, munitions, night-vision apparatuses, planes, helicopters, anti-missile defense apparatuses, tanks (including ships for the Kazakh Caspian Fleet), and also provides after-sales service and repairs. In 2014, Moscow and Astana (recently renamed Nursultan in 2019) signed an agreement to establish a unified air-defense system, which today has become one of the priorities of their cooperation.²⁴ Since 2005, Moscow's influence has been further enhanced by the revival of the Central Asia industrial military complex.

The Russian authorities have also succeeded in keeping or in regaining a number of military and research facilities in Kazakhstan, Kyrgyzstan, and Tajikistan.²⁵ The most important ones from the entire former Soviet Union are those in Kazakhstan, whose territory constitutes a major element of the Russian defense system. Since the 1990s, Astana, Kazakhstan, has given Russia the use of several firing ranges in exchange for military materiel, specialized maintenance, and officer training. Moscow rents the Baikonur Cosmodrome space complex from Astana, as well as weapons and missile launch centers in the Atyrau and Western Kazakhstan regions. In Kyrgyzstan, Russia has the Kant base at its disposal. Established in 2003, this base is an essential stake of the Kremlin's policy in Central Asia, since it is seen as a means of countering North Atlantic Treaty Organization (NATO) forces in the region, which, until 2014, were installed on the

Manas base in Kyrgyzstan to conduct operations in Afghanistan. Kant has about 400 military personnel from the air force corps and at least a dozen planes and helicopters. In October 2012, Kyrgyzstan renewed the lease agreement for the base for a period of 15 years.²⁶ Russia also has three military bases at its disposal in this republic: Chaldovar (a communications center), Mailuu Suu (a laboratory for the detection of seismic activities and nuclear tests throughout the world), and an anti-submarine weapons test zone at Karakol on the shores of Lake Issyk Kul.

In Tajikistan, Moscow has its 201st motorized rifle division (about 7,000 troops) deployed in Dushanbe, Qurghonteppa, and Kulob. The 149th Motorized Rifle Regiment, which is the part of the 201st division deployed in Kulob, will be transferred to Lyaur, 15 miles south of Dushanbe. This division is the largest Russian military presence outside the federation's borders. Despite declared efforts to increase troop numbers (in April 2015, the Commander of the 201st Base stated that the troop numbers would increase over a 5-year period to 9,000), Moscow announced in February 2016, that the 201st division would transition to a brigade status.²⁷ Under an agreement signed in October 2012, Russian troops are allowed to remain stationed in Tajikistan until 2042. Russia also occupies the Okno space surveillance center, home to an electronic and optic monitoring station of the Russian space forces. The Ayni Air Base close to Dushanbe hosts Russian helicopter squadrons.

THE RESPONSE OF CENTRAL ASIAN STATES TO RUSSIAN AMBITIONS

Since the fall of the Soviet empire, Russia and Central Asia have restored, and sometimes developed,

significant military and strategic cooperation. Despite these exchanges, two observations are striking. First, a considerable disparity persists, on the one hand, between Kyrgyzstan, Kazakhstan, and Tajikistan, all of which keep very close security ties with Moscow, and, on the other, their Uzbek and Turkmen neighbors, who are far more cautious in their strategic cooperation with the ex-big brother. Second, regardless of their relations with Moscow, all the Central Asian states have sought to balance out or to reduce their strategic dependency by developing their exchanges and cooperation with other states. Aware that their inability to manage their own defense enhances the positions of Russia and China, they all aspire to develop their own military sectors; to pursue a balanced, so-called multi-vector foreign policy; and, to avoid any geopolitical deadlocks that would cut down excessively on their autonomous decision-making capacity.

In Kazakhstan, this quest for autonomy is expressed through a security discourse that is distinct from the Kremlin's rhetoric which is focused on terrorist risks, and, recently, on the potential consequences of operations of the Islamic State in the region. President Nursultan Nazarbayev has regularly minimized the risks with which Kazakhstan would be confronted so as not to make foreign investors anxious, and to curb the geopolitical ambitions of Moscow, for whom the so-called terrorist risk implies increased Russian presence in the sector of Central Asian defense.²⁸

Astana has also progressively automated its military doctrine, which, in the 1990s, remained largely in the shadows of the Soviet legacy. While preparing its new doctrines in the 2000s, it organized consultations with foreign, Russian, and Western experts in order

to reduce the Soviet legacy and Moscow's influence, and to take advantage of new defense concepts more inspired by the West. This marking of a distance with Russia was especially notable in the *2011 Military Doctrine*, for which no Russian expert was consulted. This doctrine affirms Russia's important role and that of international organizations (CSTO and the Shanghai Cooperation Organization [SCO]). It insists on bilateral and multi-vector cooperation, particularly with the other major military powers (the United States and China), and places the essential burden of security and of Kazakhstan's ability to respond to crises on state bodies (the defense ministry, interior ministry, and the various forces).²⁹ The Kazakhstani Government has indicated that it would only ask for external aid in cases of high-intensity conflict, openly signaling its refusal to let Russia interfere in the country's security.

Since gaining independence, Uzbekistan, and Turkmenistan have always positioned themselves as independent operators, asserting their increased autonomy vis-à-vis Moscow in the security sector, as well as the political and economic one. In the name of its so-called permanent neutrality adopted in 1995, Ashgabat has refused to get involved in most of the multilateral organizations and has reduced its security ties with Moscow. Uzbekistan's policies have fluctuated, oscillating between an alliance with Moscow in order to shore up its regime security, in particular after the events in Andijan in 2005, and a desire to have greater distance from Russia, as was shown by its withdrawal from the CSTO in 2012. Tashkent has been very reluctant to engage in the SCO, which it deems too heavily influenced by Moscow and Beijing; has declined involvement in the many joint military exercises organized under its auspices; and, has been notably absent

from several of its summits. Finally, despite extremely reduced defense budgets owing to their economic and social crises which have been occurring since independence, Kyrgyzstan and Tajikistan have explicitly stated their refusal to have Moscow enjoy a monopoly in terms of strategic and security policies.

Within this purview, all the states of the region are open to foreign partnerships. They essentially are focused on the regional powers, including China, which, because of its military power and economic weight, is an inescapable player. However, for the time being, Chinese bilateral military presence in Central Asia is limited. Its aid is restricted to electronic material, automobiles, and textiles, and includes almost no military sales.³⁰ China is making a modest attempt to develop its training aid. Exchanges were organized to train military cadres, but the language barrier hinders prospects. For the Central Asian governments, equipment and training from the Chinese People's Liberation Army (PLA) is a still theoretical balance to the outdated Soviet supplies, but, for the time being, aid remains focused on non-military material and involves little training.³¹

India has also tried to get involved, and this initiative generally has been well received by the Central Asian states. In practice, however, the outcome has been limited. Officers from the Central Asian states except Turkmenistan have attended courses at India's premier military institutions. India provided infrastructure assistance to the Military Training College in Dushanbe.³² Delhi heavily participated in the reconstruction of the Ayni Air Base, where it has tried for many years to open its first overseas base. However, Indian personnel deployed there were evacuated after the Tajik Government announced in December 2010

that Russia was the only country with which it would conduct negotiations for the Ayni Air Base.³³ Although Indian Prime Minister Narendra Modi made several new attempts in 2015 to negotiate an Indian presence on this base, nothing has come of it yet.

Turkey sees Central Asia as a high priority strategic zone and has been particularly involved there. Several hundred Central Asian military personnel trained in Turkey as part of a bilateral defense program and under the auspices of NATO Partnership for Peace.³⁴ Ankara has also provided aid to Kyrgyzstan to the tune of US\$13 million to fight terrorism, drug trafficking, and illegal migration, and to strengthen the defense and security sectors. In 2012, the Turkish defense company ASELSAN and Kazakhstan Engineering signed a contract worth US\$44 million to create a joint Turkish-Kazakh defense-manufacturing base.³⁵

However, ever since independence, the states of Central Asia have turned as a matter of priority to the West. In Western military power, they saw a chance to develop their very weak defense systems as well as the possibility for a symbolically strong alliance in order to signal to Moscow their desire to develop in autonomy. Nevertheless, the EU and its member states have had limited interest in Central Asia. They have fostered security in "Greater Central Asia," through the Western military engagement in Afghanistan since 2001 and after the withdrawal in 2014. Moreover, the EU does not position itself on the international scene as a hard security actor, and its security assistance is often associated with other institutions, such as NATO. Because of both the multiplicity of European actors and the fact that EU security mechanisms are too limited and dispersed to be effective, there is no European "grand

narrative” on Central Asian security that could compete with that of Russia.

The Central Asian states have turned far more toward Washington. Until the end of the 1990s, the structures of NATO served as the main vector of U.S. military cooperation with the region. The five states are members of the Euro-Atlantic Partnership Council and of the Partnership for Peace. However, NATO remains quite inactive in Central Asia.³⁶ Its aim in the region is not to prepare these countries for membership, but to maintain open lines of communication with the local governments by involving them in joint activities such as military exercises and information exchange. So far, Kazakhstan is the only Central Asian state to have created a small peacekeeping force that collaborates with NATO under a United Nations (UN) mandate, the Kazbat battalion, upgraded to the Kazbrig brigade.³⁷

At the end of the 1990s, the lack of success in trying to influence the democratization of Central Asian regimes and the fear of terrorist threats transformed a withdrawal of U.S. economic aid into military collaboration.³⁸ After the attacks in Tashkent of February 16, 1999, the Uzbek authorities benefited from aid from the Foreign Military Financing Program.³⁹ Assistance was also concentrated on border securitization: In 2000, Washington elaborated the Central Asian Border Security Initiative (CASI).⁴⁰ The United States established itself in the southern town of Karshi-Khanabad, opening up their first military base in the former Soviet Union. It provided aid to the other countries of the region and furthered its collaboration with an increasingly dynamic Kazakhstan. A second military base opened in Kyrgyzstan at the Manas airfield, close to Bishkek. However, American forces evacuated both bases in 2010 and 2011, respectively.

The United States is also a generous donor of bilateral military aid, organized through two programs: Foreign Military Financing and International Military Education and Training.⁴¹ Washington is also keeping a close eye on the militarization of the Caspian Sea, considered a strategic sector for U.S. interests. The security of major oil companies participating in international consortiums for the exploitation of hydrocarbons in Azerbaijan and Kazakhstan has to be assured. In 2003, the United States launched the Caspian Guard, a training program for a network of special and police forces that would enable Azerbaijan, Kazakhstan, and potentially Turkmenistan to react rapidly and effectively to emergencies. The most ambitious objective is to establish an integrated regime of air, maritime, and border controls. Financial, technical, and training aid from the United States to the Kazakh military increased in the 2000s, once Astana made the decision to establish a naval force. After 2004, the United States offered a modernization program for the Kazakh Army along with several other components: training officers in the military academies of NATO members; supplying materiel for radio and radar surveillance that is able to monitor both the surface and the depths of the Caspian; and, modernizing port infrastructure, in particular at Atyrau.⁴² Despite these multiple programs, American aid remained rather limited, and was significantly reduced after the U.S. military withdrawal from Afghanistan (US\$24.7 million in 2016, a decrease of 26 percent from 2014).⁴³

In 20 years of independence, the Central Asian states have thus managed to diversify their military partnerships, forming exchanges and cooperation with geographically and/or culturally close neighbors (China, India, and Turkey) but, also with military

powers further away (the United States). However, today Moscow's strong domination in the Central Asian strategic and security sector is more than evident. It is therefore crucial to determine what enabled Moscow to continue to impose itself on the region, often at the expense of third parties.

MOSCOW'S CARROT-AND-STICK POLICY

Over 20 years, Moscow has deftly played on and combined numerous elements to maintain its influence over the Central Asian defense market. These include the weakness of the majority of the Central Asian armed forces; the historical legacy; an extremely fragile social and economic conjuncture; increased security threats and risks of destabilization; and, if necessary, games of pressure and retaliation.

Russia's response has essentially been about dealing with an emergency state of security. The day after the Soviet bloc crumbled, no Central Asian republic had its own army, only some meager police forces. All of them were obliged to build an army with reduced financing due to the difficult economic transition and the need to respond in priority to the risks of social destabilization. Despite considerable investments and a large increase in defense budgets after 2005, most of the Central Asian military sector continues to be extremely ill-adapted and fragile.

Mired in an economic and social crisis for over 20 years, Kyrgyzstan and Tajikistan have struggled to build and maintain their poorly trained and equipped armies, which include personnel numbers of 12,000 and 7,000, respectively.⁴⁴ Despite its largely superior economic potential, Turkmenistan's Army is considered one of the weakest of the region. The government has essentially invested in the acquisition of modern

equipment and weapons that the majority of its 17,000-strong personnel are unable to use, due to a lack of training.

The other two states, Uzbekistan and Kazakhstan, have developed a more substantial military sector. Since the end of the Soviet regime, the Uzbek Army has been the most powerful in terms of size, with 70,000 men (all forces included), but it lacks training and for the most part remains poorly equipped.⁴⁵ With 45,000 men, the Kazakh Army is less numerous, but is considered the most able to respond to the current stakes. Thanks to immense investments (US\$2.8 billion were earmarked for the military sector in 2014), it has become the premier Central Asian army in terms of the sophistication of its material, its ability to adapt to new technologies, the creation of a Caspian Fleet, and its transition to professionalization. It nevertheless remains far below the capacities of the forces of many other states of the Middle East, South Asia, or of NATO.⁴⁶

Regardless of their level of development, most suffer from gaps in command and control, training, and poor discipline, while their equipment remains under maintained. Draft dodging and desertion are commonplace. In addition, the obsession of these states to keep society under control has led them to intensify the repressive character of the armed forces. This has had a detrimental effect, resulting in a lack of adequate training for meeting modern challenges, such as large-scale drug trafficking. The governments of Central Asia have often prioritized the reinforcing of means and troops of their Interior Ministries and special services to the detriment of the regular Army. This choice has taken a heavy toll on the state of the Central Asian armies, in particular on the poorest, which are today struggling to adapt their defense sectors.

Moscow has ably taken stock of this difficult situation and drawn on its historical ties with the region, thus establishing itself as a key partner beginning from the 1990s. Russia is a power unlike others in Central Asia. It is the region's former colonizer, a role that started in the 19th century and even in the 18th century for some of the northern parts of Kazakhstan, and after that, the engine of Soviet political, social, and cultural engineering for 70 years. Human continuity is a key component of Russia's influence. Central Asian political and intellectual elite were educated either in Moscow or in Leningrad prior to 1991; the Russian and Central Asian military and secret service personnel all belonged to the same administrative entity; the patronage strategies of decision-making circles were formed in the same Soviet mold, and still operate according to very similar patterns. On the cultural level, the advantage is also clearly in Russia's favor. The most spoken language in the region is still Russian, which enjoys an official status in three states: Kyrgyzstan (officially bilingual), Kazakhstan, and Tajikistan (as a designated language of interethnic communication).⁴⁷ For the moment, English has not succeeded in achieving predominance over Russian, and Turkish, Arabic, and Chinese have had even less success. Russian culture remains present, in particular through the cable television channels, pop music, fashion, and books. Labor migration also reinforces Russia's influence, enabling it to recover a certain cultural and linguistic sway in the region and provide a new pole of development for Central Asian societies. In part, therefore, Central Asian societies continue to view the world through the Russian prism, regarded as a more familiar "West" than the more foreign Western Europe or the United States.

Moscow has played on the—real or faked—fears of terrorist threats expressed by local governments to justify its growing role in regional security and the strengthening of ties between post-Soviet states. With only a lukewarm reception in Kazakhstan, the discourse on the religious radicalization of the Central Asian populations hits home in the weakest states (Kyrgyzstan and Tajikistan). Despite its justified isolation in the name of the principle of neutrality, Ashgabat has been unable to secure its southern border, which in the last couple of years has seen regular incursions and violence, and has had—partially—to rely on support from Moscow.

Moscow also benefits from the regional context there, which is rife with real or potential interstate tensions. For Bishkek and Dushanbe, remaining under the Russian security umbrella means avoiding a high-intensity conflict with Tashkent, which is militarily far more powerful and has not hesitated to threaten the prospect of a war over water resources. Moreover, no army in the region would be able to deal with armed conflict with Beijing, China, whose economic weight, and, consequently its levers of political influence, are making the local regimes more and more anxious.

Moscow instrumentalizes the difficulty, or disinterest, of third parties in getting involved in local defense in order to keep its standing as the main sponsor and financier for both technology and materiel of the Central Asian military sector. The investments and cooperation proposed by the West or by Turkey remain well below Russia's support contributions, particularly since NATO troops withdrew from Afghanistan. The distrust aroused by Chinese power seriously limits its security cooperation with the Central Asian states. Moscow has used this apprehension to limit the

influence of the SCO, in which Beijing plays a major role, and to privilege the CSTO, where it has more control. This strategy is often well regarded by the Central Asian states, who have been disappointed with the inability of the SCO to address the security issues of the region. Indeed, the gap between that organization's narrative about the fight against nontraditional threats and its mechanisms to enable collective, or at least concerted, action is immense. The SCO does not provide any military guarantees in cases of domestic crisis. Nor does it offer any such structure as a "rapid intervention force" or a collective troop force like that of the Ministry of Emergency Situations in Russia, which is able to intervene in situations such as natural or industrial catastrophes, sudden population displacements, refugee crises, and so on. The SCO has never managed to react to a large-scale crisis within one of its member states. Its silence during the Kyrgyz events of 2010 weakened its legitimacy, as does its incapacity to offer anything collective to a state that, albeit a non-member, is as key as Afghanistan.⁴⁸ The SCO has always refused to get involved in conflicts between states of the region.⁴⁹

If Moscow has therefore aimed to present itself as a reliable and essential ally for Central Asian states, it has nevertheless not desisted from using coercive means when some states have sought to reduce its influence. By selling, within the framework of the CSTO, large amounts of armaments at a preferential rate, Russia introduces a moral obligation for each member state to acquire the majority of its supplies as part of this alliance. In this way, it has tried to limit the efforts of the states of the region, in particular of Kazakhstan, to diversify their supplies. Interstate tensions have also served as a tool of pressure: by suspending its

participation in the CSTO, Tashkent runs the risk of seeing Moscow side with Bishkek or Dushanbe in case of conflict, an option that the Kremlin has not failed to flaunt.

Finally, Russia has skillfully tied the security stakes to its political support and its economic commitment, and has again taken a carrot-and-stick approach to enforcing its strategic objectives. It remains, along with Beijing, the main ally and political supporter of the authoritarian Central Asian regimes against Western states, who have exerted pressure in favor of political reform. On the other hand, in cases of disagreement, the Kremlin constitutes a potential threat, since it can easily destabilize a regime, as shown by its lending of a hand to topple Bakiyev. Putin did not hesitate to use blatant forms of blackmail when Dushanbe looked reluctant to extend its having the 201st Russian division on its territory.⁵⁰ During negotiations, it invoked the issue of labor migrant quotas and the prickly question of energy supplies, threatening to destabilize the economy of a state that 49 percent of its gross domestic product (GDP) is made up of remittances and which, each year, has to contend with serious energy crises. By making its support for the political regimes and its economic aid conditional on its military aims, the Kremlin sends a signal to the governments that, in case of disagreement and conflict, the entire state edifice (political power, the economy, and domestic and external security) would be jeopardized.

Russia adopted this same carrot-and-stick approach with Kyrgyzstan to demand the departure of American forces from the Manas base and to acquire a lease renewal of the Kant base. In exchange, Moscow is said to have promised to relax restrictions and work permit quotas for Kyrgyz citizens in Russia. Russia would

provide financial aid to the tune of US\$1 billion in order to make up for the end of American aid, to scrub US\$500 million worth of debt, and to offer a contract with RusHydro for the construction of four hydroelectric stations for an amount between US\$410-425 million.⁵¹ By thus tying military and economic cooperation, Russia is able to constitute a fundamental element in the country's stability. For example, in 2010, the electricity shortfall largely contributed to the overturning of President Bakiyev. In addition, by offering subsidized fuel deliveries, Moscow partially protects Bishkek from Tashkent's coercions, as its energy security remains dependent upon Uzbek gas. Finally, any restriction of labor quotas would have devastating consequences on Kyrgyzstan, a country where percent of its GDP is made up of remittances.

CONCLUSION

A quarter of a century after the collapse of the Soviet Union, Russia continues to play a fundamental role in the security and military architecture of the Central Asian states. This Russian domination is not a given, however.⁵² The agreements and exchanges are often interpreted as working primarily to fulfill Moscow's own interests. The CSTO continues to be seen as a tool of Russian influence that is more focused on threats deemed more or less fictive (outside terrorist threats) than on the region's genuine security issues (tensions between states, border conflicts, and violence over the question of water sharing).⁵³ The refusal of the CSTO and the Kremlin to react to the 2010 crisis in Kyrgyzstan contributed somewhat to discrediting the capacities and avowed intentions of Russian involvement in the region. In March 2016, neither Russia nor the CSTO

were able to get involved in the border crisis between Kyrgyzstan and Uzbekistan. While Kyrgyzstan asked the organization for a special session of the permanent council in Moscow, the Kremlin only replied in very limited fashion, sending the vice general secretary of the organization to observe the situation. The crisis was ultimately resolved in a peaceful manner by both protagonists, without Moscow or the CSTO really seeking to get involved.

The doubts that have arisen around Russian engagement in the region go beyond the military and security question. The financial crisis currently shaking Russia palpably reduces its capacity to influence. Russia has pulled out of a certain number of economic projects that had formed essential foundations of its cooperation with the states of Central Asia. Kyrgyzstan is now after new financiers for its Kambarata hydroelectric projects, which Moscow had to abandon owing to the economic crisis.⁵⁴ In addition, the annexation of Crimea, the management of the conflict in Ukraine, and the potentially threatening and unforeseeable character of the Kremlin's policies have generated much apprehension among Central Asian governments and populations. The presence of large Russian minorities in Central Asia, in particular in the north of Kazakhstan, and the domination, to their detriment, of a titular ethnic group, is a tool that Moscow can still easily instrumentalize, as the events in Ukraine showed. Finally, and more recently, Moscow's decision to transform the 201st division into a brigade without consulting the Tajik party confirms for some that Russia makes light of its weakest partners.

Does this new context open new spaces of possible Western influence in the region? More than ever, the states of Central Asia are after new partnerships that

would offset Russian influence, as is attested by, among other things, Nazarbayev's recent trip to Turkey, the stakes of which were economic (to sign new contracts) and political (to indicate to Russia that Kazakhstan is free in its decisions and foreign policy choices). Washington and other third parties can therefore be hopeful about negotiating new agreements in the years ahead.

Any development of exchanges and military aid with the states of Central Asia, however, gives rise to two fundamental questions. How is it possible to organize and control cooperation with extremely authoritarian states that use the military sector to guarantee the security of political regimes, and which diverts military materiel supplied from abroad to accomplish the repression of the opposition? On the other hand, despite the several attempts to diversify their partnerships, the countries of Central Asia can hardly go against the pressures imposed on them by their two most powerful neighbors, Russia and China, since the stability of their regimes depends on these neighbors. Moreover, it is hardly likely that the West is able and ready to set itself upon Central Asian terrain if Beijing and Moscow mobilize against this initiative. Central Asia does not comprise a strategic zone either for the EU or for the United States, the latter of which is today far more focused on the situation in the Middle East and in Ukraine, and has substantially cut its aid for the Central Asian security forces.⁵⁵ Faced with a more and more serious economic crisis and with risks of destabilization, it is rather unlikely that the states of Central Asia can extract themselves in a significant way from Russian (and Chinese) influence. Involved as they are in all sectors, military and economic, these two countries remain the two key actors and the essential guarantors of Central Asian security.

ENDNOTES - CHAPTER 19

1. "Russia's Interests in Central Asia: Contents, Perspectives, Limitations," No. 10, Moscow, Russia: Russian International Affairs Council, 2013; I. Safrantchouk, "La politique de la Fédération de Russie en Asie centrale. Contexte stratégique" ("The Russian Federation's policy in Central Asia. Strategic Context"), *Note de l'Observatoire franco-russe*, No. 8, November 2014.

2. Andrei Tsygankov, *Russia's Foreign Policy: Change and Continuity in National Identity*, Lanham, MD: Rowman & Littlefield, 2006.

3. Peter Reddaway, and Dmitri Glinski, *The Tragedy of Russia's Reforms: Market Bolshevism Against Democracy*, Washington, DC: United States Institute of Peace, 2001.

4. On the revival of great power narratives in Russia in the 1990s, see Fiona Hill, *In Search of Great Russia. Elites, Ideas, Power, the State, and the Pre-Revolutionary Past in the New Russia, 1991-1996*, Ph.D. dissertation, Cambridge, MA: Harvard University, 1998.

5. On the main figures of this self-assertive narrative, see Marlene Laruelle, *In the Name of the Nation: Nationalism and Politics in Contemporary Russia*, New York: Palgrave Macmillan, 2009, pp. 122-131.

6. Paradorn Rangsimaporn, *Russia as an Aspiring Great Power in East Asia: Perceptions and Policies from Yeltsin to Putin*, New York: Palgrave Macmillan, 2009.

7. Vitaly V. Naumkin, *Radical Islam in Central Asia. Between Pen and Rifle*, Lanham: Rowman & Littlefield, 2005.

8. On the Russian military presence in Tajikistan, see M. Makhonina, *Voенно-politicheskoe sotrudnichestvo mezhdu Rossiei i Tadjikistanom 1993-1999 (Military Political Cooperation between Russia and Tajikistan 1993-1999)*, Dushanbe, Tajikistan: Akademiia Nauk, 1999.

9. Keith Crane, D. J. Peterson, and Olga Oliker, "Russian Investment in the Commonwealth of Independent States," *Eurasian Geography and Economics*, Vol. 46, No. 6, 2005, pp. 405-444.

10. Lena Jonson, *Vladimir Putin and Central Asia: The Shaping of Russian Foreign Policy*, London, UK: I.B. Tauris, 2004; John B. Dunlop, "Reintegrating 'Post-Soviet Space'," *Journal of Democracy*, Vol. 11, No. 3, 2000, pp. 39-47.

11. Bobo Lo, *Vladimir Putin and the Evolution of Russian Foreign Policy. Reality, Illusion and Mythmaking*, London, UK: Chatham House Papers, 2003; Bertil Nygren, *The Rebuilding of Greater Russia: Putin's Foreign Policy Towards the CIS Countries*, London, UK: Routledge, 2007.

12. See for example S. Golunov, "Narkotogovlia cherez rossijsko-kazakhstanskuiu granicu: Vyzov i problemy protivodeistviia" ("Drug Trade Across the Russian-Kazakh Border. The Challenges and Problems of Contradictory Actions"), *Rabochii doklad Central regional'nyh i transgranichnih issledovaniy VoIGU*, 2004.

13. See "Strategiia nacional'noi bezopasnosti Rossiiskoi Federacii do 2020 goda" ("The Russian Federation's National Security Strategy until 2020"), May 13, 2009, available from <http://kremlin.ru/supplement/424>.

14. John W. Parker, "Russia's Revival: Ambitions, Limitations, and Opportunities for the United States," *INSS Strategic Perspectives*, No. 3, Washington, DC: National Defense University Press, 2011.

15. I. Safranchuk, "Rossiiskaia politika v Central'noi Azii. Strategicheskii kontekst" ("The Russian Federation's Policy in Central Asia. Strategic Context"), *Zapiska Analiticheskogo centra Observo*, No. 8, November 2014.

16. Jeanne L. Wilson, "The Legacy of the Color Revolutions for Russian Politics and Foreign Policy," *Problems of Post-Communism*, Vol. 57, No. 2, 2010, pp. 21-36.

17. Fiona Hill and Kevin Jones, "Fear of Democracy or Revolution: The Reaction to Andijan," *The Washington Quarterly*, Vol. 29, No. 3, 2006, pp. 111-125; Martha Brill Olcott and Marina Barnett,

"The Andijan Uprising, Akramiya and Akram Yuldashev," Carnegie Endowment for International Peace, June 22, 2006, available from <http://www.carnegieendowment.org/publications/index.cfm?fa=view&id=18453&prog=zru>.

18. K. Syroezhkin, "Puti i mehanizmy resheniia problem regiona CA. Rol' i potencial ODKB" ("Means and Mechanisms for Problem Solving in the Central Asian Region. The Role and Potential of the CSTO"), in I. Ia Kobrinkar, ed., *Vyzovy bezopasnosti v Central'noi Azii (Security challenges in Central Asia)*, Moscow, Russia: Imemo RAN, 2013, pp. 132-134; A. Vlasov, "ODKB i stabil'nost' v Central'noj Azii" ("The CSTO and Stability in Central Asia"), *Informacionno-analiticheskii Centr*, July 3, 2013, available from <http://ia-centr.ru/>; A. Nikitin, "Post-Soviet Military-Political Integration: The Collective Security Treaty Organization and its Relations with the EU and NATO," ODKB, pp. 35-44.

19. Vladimir Paramonov and Oleg Stolpovski, *Russia and Central Asia: Multilateral Security Cooperation*, Shrivenham, UK: Defence Academy of the United Kingdom: Central Asia Series, March 2008.

20. Roger N. McDermott, "Russia recalibrates 201st base in Tajikistan," *The CACI Analyst*, February 25, 2016, available from <http://www.cacianalyst.org/publications/analytical-articles/item/13335-russia-recalibrate-201st-base-in-tajikistan.html>.

21. More details in Sébastien Peyrouse, "Russia-Central Asia: Advances and Shortcomings of the Military Partnership," in Stephen J. Blank, ed., *Central Asian Security Trends: Views from Europe and Russia*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, 2011, pp. 1-34.

22. Erica Marat, *The Military and the State in Central Asia. From Red Army to Independence*, London, UK, and New York: Routledge, 2010.

23. More details in Sébastien Peyrouse, "The Central Asian Armies Facing the Challenge of Formation," *The Journal of Power Institutions in Post-Soviet Societies*, No. 11, 2010, pp. 2-16.

24. Kazis Toguzbaev, "Rossiia sozdaet edinuiu sistemu PVO s Kazahstanom" ("Russia Creates Unified Air Defense System

with Kazakhstan”), Radio Azattyk, December 30, 2013, available from <http://rus.azattyq.org/a/kazakhstan-russia-unified-air-defence-ratification/25214011.html>.

25. Paramonov and Stolpovski; Nuria Kutnaeva, “Foreign Military Bases in Post-Soviet Central Asia,” *Central Asia and the Caucasus*, Vol. 11, Iss. 2, 2010, pp. 70-80, available from <https://www.ca-c.org/journal/2010-02-eng/00.shtml>.

26. “Russia, Kyrgyzstan seal military base agreement,” RT, September 20, 2012, available from <https://www.rt.com/politics/common-help-operation-afghanistan-545/>.

27. McDermott, “Russia recalibrates 201st base in Tajikistan.”

28. Zhulduz Baizakova and Roger N. McDermott, *Reassessing the Barriers to Islamic Radicalization in Kazakhstan*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, July 2015.

29. Roger N. McDermott, “Kazakhstan’s 2011 Military Doctrine: Reassessing Regional and International Security,” Ft. Leavenworth, KS: Foreign Military Studies Office, 2012, p. 16, available from <https://web.archive.org/web/20130213214319/http://fmso.leavenworth.army.mil/Collaboration/international/McDermott/Kazakhstan-2011-military.pdf>.

30. Sébastien Peyrouse, “Sino-Kazakh Relations: A Nascent Strategic Partnership,” *China Brief*, Vol. 8, Iss. 21, November 4, 2008, pp. 11-15, available from <https://jamestown.org/program/sino-kazakh-relations-a-nascent-strategic-partnership/>.

31. Sébastien Peyrouse, “Military Cooperation between China and Central Asia: Breakthrough, Limits, and Prospects,” *China Brief*, Vol. 10, Iss. 5, March 5, 2010, available from <https://jamestown.org/program/military-cooperation-between-china-and-central-asia-breakthrough-limits-and-prospects/>.

32. See Jagannath P. Panda, “India’s New Look at Central Asia Policy: A Strategic Review,” in Marlène Laruelle and Sébastien Peyrouse, eds., *Mapping Central Asia: Indian Perceptions and Strategies*, Surrey, UK: Ashgate Publishing Limited, 2011, pp. 109-122.

33. Roman Muzalevsky, "India Fails to Gain a Military Foot-hold in Tajikistan," *The Central Asia-Caucasus Analyst*, February 2, 2011, p. 12.

34. "Sotrudnichestvo Respubliki Kazakhstan s Turetskoi Respublikoi" ("Cooperation of the Kazakh Republic with Turkey"), Kazakhstan Foreign Affairs Ministry, available from <http://mfa.gov.kz/kz>.

35. Ryskeldi Satke, Casey Michel, and Sertaç Korkmaz, "Turkey in Central Asia: Turkic Togetherness?" November 28, 2014, *The Diplomat*, available from <http://thediplomat.com/2014/11/turkey-in-central-asia-turkic-togetherness/>.

36. "NATO and Central Asia. The two elephants that never meet," *EUCAM Newsletter*, No. 11, February 2012.

37. Roger N. McDermott, *Kazakhstan's Defense Policy: An Assessment of the Trends*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, 2009.

38. Jim Nichol, "Central Asia's New States: Political Developments and Implications for U.S. Interests," CRS Issue Brief, Washington, DC: Congressional Research Service, updated May 18, 2001.

39. M. R. Djalili and T. Kellner, "Géopolitique de la nouvelle Asie centrale. De la fin de l'URSS à l'après-11 septembre" ("Geopolitics of the New Central Asia: From the End of the USSR to the After-11 September"), Paris, France: PUF, 2003, p. 400.

40. Richard Giragosian and Roger N. McDermott, "U.S. military engagement in Central Asia: 'Great Game' or 'Great Gain'?" *Central Asia and the Caucasus*, No. 1(25), 2004, pp. 53-61, available from https://www.ca-c.org/journal/2004/journal_eng/cac-01/00.cac.eng.1.2004.shtml.

41. See the archive "U.S. Assistance to Europe and Eurasia: Fact Sheets and Remarks," available from <https://2009-2017.state.gov/p/eur/ace/c11609.htm>.

42. Roger McDermott, "Kazakhstan Boosting Caspian Security," *Eurasia Daily Monitor*, Vol. 3, Iss. 100, May 23,

2006, p. 100, available from <https://jamestown.org/program/kazakhstan-boosting-caspian-security/>.

43. "U.S. Security Assistance to Central Asia," Security Assistance Monitor, July 22, 2015, available from http://securityassistance.org/fact_sheet/us-security-assistance-central-asia.

44. Dmitry Gorenburg, "External support for Central Asian military and security forces," Working Paper, Stockholm, Sweden: Stockholm International Peace Research Institute and Open Society Foundations, January 2014, p. 22.

45. Ibid., p. 12.

46. Ibid.

47. The Russian language has lost its official status in Turkmenistan and Uzbekistan since the beginning of the 1990s.

48. Meena Singh Roy, "Role of the Shanghai Cooperation Organisation in Afghanistan: Scope and Limitation," *Strategic Analysis*, Vol. 34, No. 4, July 2010, pp. 545-561.

49. Stephen Aris and Aglaya Snetkov, "Global Alternatives, Regional Stability and Common Causes: The International Politics of the Shanghai Cooperation Organization and Its Relationship to the West," *Eurasian Geography and Economics*, Vol. 54, Iss. 2, 2013, pp. 202-226.

50. David Trilling, "Tajikistan: Russia Bullies Migrants amid Base Row," Eurasianet, April 15, 2013, available from <http://www.eurasianet.org/node/66824>.

51. Stephanie Ott, "Russia tightens control over Kyrgyzstan," *The Guardian*, September 18, 2014, available from <http://www.theguardian.com/world/2014/sep/18/russia-tightens-control-over-kyrgyzstan>.

52. Stephen J. Blank, "Challenges to Russia in Central Asia," *American Foreign Policy Interests*, Vol. 33, Iss. 5, 2011, pp. 209-221; Stephen Blank, "Russia's Waning Soft Power in Central Asia," *The Diplomat*, January 9, 2015, available from <http://thediplomat.com/2015/01/russias-waning-soft-power-in-central-asia/>.

53. Joshua Kucera, "In Another Central Asian Security Crisis, Moscow Again Stands Aside," Eurasianet, March 29, 2016, available from <http://www.eurasianet.org/node/78006>.

54. "Atambaev: Rossiia ne smozhet postroit 'Kambaratu-1' i Verhnenarynskii kaskad GES" ("Atambaev: Russia Will Not be Able to Build Kambarata-1 and Verhnenaryn Cascade of HPPS"), KloopMedia, December 24, 2015, available from <http://kloop.kg/blog/2015/12/24/atambaev-rossiya-ne-smozhet-postroit-kambaratu-1-i-verhnenarynskij-kaskad-ges-video/>.

55. Joshua Kucera, "U.S. Slashes Military Aid to Central Asia," Eurasianet, June 18, 2014, available from <http://www.eurasianet.org/node/68651>.

CHAPTER 20. RUSSIAN MILITARY POWER AND POLICY IN THE FAR EAST

Richard Weitz

This chapter will examine Russia's military capabilities in the Far East (also known as East Asia or the Asia-Pacific region), including its ground, aerospace, naval, and nuclear capabilities; its growing military activities in the region, especially in terms of the number and size of its exercises; Russia's security relations with China, Japan, and the Koreans; and the political-military implications of these developments.¹

According to a June 2017 assessment by the U.S. Defense Intelligence Agency (DIA), Moscow has sought to build a robust military able to project power, add credibility to Russian diplomacy, and ensure "that Russian interests can no longer be summarily dismissed without consequence."² In this context, the main missions of the Russian forces in the Far East are to maintain strategic nuclear deterrence against the United States and China; win any regional, conventional conflicts in East Asia; manage any regional crises (such as on the Korean Peninsula); engage with foreign navies; highlight Russia's international power and status; and, enforce Moscow's control over Russia's eastern territories, including the Northern Sea Route in the Arctic, by denying potential adversaries access to the region in wartime.

Throughout the past decade, the Russian forces have been modernizing their equipment and increasing their capabilities and level of readiness. The units based in the Russian Far East have received new technologies and other capability enhancements as their share of Russia's overall military buildup. The Russian

military has also been increasing its international presence, including by conducting routine air and sea patrols in the Asia-Pacific region. Furthermore, the Russian armed forces have increased their readiness to fight by means of adopting the same kinds of large-scale drills and surprise “snap” exercises seen in other geographic regions near Russia. In addition, Russian forces have engaged in bilateral and multilateral exercises with Asian militaries, especially with the Chinese Peoples’ Liberation Army (PLA). Moreover, Russian arms sales in Asia are rising, even beyond the large Russian weapons exports to China.

Yet, the Russian military revival has had less of an impact in the Far East than in Europe, the Caucasus, Central Asia, or the Middle East. Economic and infrastructure impediments substantially constrain Moscow’s military presence in Asia. The near-term provocations of North Korea and the long-term growth of Chinese military power have preoccupied most East Asian countries, none of whom fears a near-term war with Russia. Although Russian military capabilities in the Russian Far East are growing, so are those of other East Asian countries. Russian requirements for their forces are likely impossible to meet. In May 2016, then-commander of the Eastern Military District (MD) General Sergey Surovikin said, “In order to **stave off any, even minimal, threats**, unprecedented steps are being taken by the Russian leadership and the Defense Ministry [emphasis added].”³ Though the threats are unnamed, this wording is somewhat ironic in light of Putin’s complaints, beginning with his speech at the 2007 Munich Security Conference, about an alleged U.S. quest for “absolute security” against all potential threats at the expense of everyone else’s security.

MILITARY CAPABILITIES

In 2010, the Ministry of Defense (MoD) reorganized its strategic command structure, creating Joint Strategic Commands (OSK) to control the general-purpose (non-nuclear) forces in an area. As a result, the new Joint Strategic Command “OSK East” (more commonly referred to as the “Eastern MD”) absorbed the then Siberian and Far East Military Districts. As the DIA explains:

The phrase ‘military district’ still exists and refers to specific geographic boundaries, but an OSK is the command element for that area. For example, the Eastern Military District covers the geographic territory from eastern Siberia to the Pacific Ocean, but it is commanded by OSK East.⁴

Headquartered in Khabarovsk, the Eastern MD forces have benefited from the past decade’s modernization efforts, resulting in more modern and capable warplanes and the first batch of new strategic submarines in the Pacific Fleet in decades.⁵ As one scholar has noted, Russia’s:

current large-scale comprehensive buildup of weaponry through 2025 aims to acquire a multi-domain, strategic-level reconnaissance-strike complex as well as a tactical-level reconnaissance-fire complex that together would give Russia high tech precision forces that could conduct operations in space, under the ocean, in the air, on the sea and the ground, and in cyberspace.⁶

For example, the MoD has added more than 20,000 contract soldiers to the Eastern MD in 2015, raising the total number of Russian military personnel in the region to 65,000.⁷ On May 31, 2016, Russian Deputy Defense Minister Timur Ivanov declared that the Eastern MD was a priority for defense construction, with

many new or renovated facilities.⁸ The MD's aerospace and naval units also serve as a force provider for other Russian strategic commands, recently deploying warplanes on rotation to Syria and warships to the Indian Ocean and Mediterranean Sea.

Ground Forces

The main ground forces in the Eastern MD include several combined-arms armies of varying sizes and capabilities as well as smaller ground units and formations, such as the 68th Army Corps (responsible for defending the Kuril Islands), which includes the 18th Machine Gun and Artillery Division, the 312th Separate Rocket Artillery Battalion, and the 39th Independent Motorized Brigade. The 5th Red Banner Army is the Army command closest to Japan. It directs four mechanized brigades, which are scattered on the southern part of Primorsky Krai around Vladivostok, and the 8th Anti-Aircraft Missile Brigade, which operates the "Buk" anti-aircraft missile system. The 29th Combined Arms Army, with headquarters in Chita, is deployed in Zabaykalsky Krai, also known as Transbaikal, one of the westernmost regions in the Eastern MD. The 35th Red Banner Combined Arms Army, based out of Khabarovsk, has three conventional ground force brigades and air defense units. The 36th Combined Arms Army is based in Ulan-Ude, the westernmost part of the district. Its main combat elements are a tank brigade, a mechanized brigade, a reactive artillery brigade, and a Nuclear Biological and Chemical (NBC) regiment. The 5th Tank Brigade is the main armored force in the Eastern MD, with T-72 main battle tanks distributed in three armored battalions as well as a mechanized battalion and other units to support the tanks. The Eastern

MD also has a special forces brigade, several signals brigades, and units of the Russian Airborne Troops (*Vozdushno-desantnye Voiska Rossii*) (see table 20-1).⁹

Army	Location	Division	Capabilities
68th Army Corps	Kuril and Sakhalin Islands	39th Independent Motorized Brigade	Modern main battle tanks
	Kuril Islands	18th Machine Gun and Artillery Division	
		312th Separate Rocket Artillery Battalion	300mm BM-30 MRLS
5th Red Banner Army	Closest to Japan, four mechanized brigades on southern Primorsky Krai.		
		8th Anti-Aircraft Missile Brigade	“Buk” anti-aircraft missile system
		107th Missile Brigade	Three missile battalions, a technical battalion, a maintenance battalion, and a control battery
29th Combined Arms Army	HQ in Chita, but deployed in Zabaykalsky Krai (Transbaikal)		A single mechanized brigade, an artillery brigade and some signals, anti-air and intelligence brigades
35th Red Banner Combined Arms Army	Khabarovsk		38th Guards Separate Mechanized Brigade, 64th Separate Mechanized Brigade and 69th Cossack Cover Brigade
		The 165th Artillery Brigade	BM-27 Uragan mobile multiple rocket launcher system (MRLS) and the MSTA-B towed field artillery piece
		71st Air Defense Brigade	Buk-M1 air defense system
36th Combined Arms Army	Ulan-Ude, the western-most part of the Eastern MD		A tank brigade, a mechanized brigade, a reactive artillery brigade and a Nuclear Biological and Chemical (NBC) regiment
		5th Tank Brigade	Three armored battalions and one mechanized battalion and other units

Table 20-1. Russia’s Order of Battle in the Eastern Military District: Major Ground Forces¹⁰

Aerospace Forces

The Eastern MD has two fighter regiments; a fighter/ground attack regiment; two ground attack regiments; one intelligence, surveillance, and reconnaissance (ISR) regiment; and several squadrons devoted to transportation or naval aviation. Under the 2010 reorganization, the 3d Air Force and Air Defense Command was created as part of the newly formed Eastern MD. This formation has been encompassed by the new Russian Aerospace Forces formed on August 1, 2015, as a merger of the Russian air force, air defense troops, and the space forces. Among these forces, reside a combination of Su-30SM, Su-30M-2, and Su-35S fighter planes; Mi-8AMTSh and Ka-52 helicopters; S-300 and S-400 surface-to-air (SAM) missiles, and Tor-M2U anti-air systems; and other elements of the 3d Air Force and Air Defense Command.¹¹

The 303d Joint Air Force Division consists of several aviation regiments. Some of these units have been deployed in Syria on a rotational basis. The 22d Fighter Air Force Regiment has a mixed inventory of fighter and interceptor aircraft, including Su-35, Su-27SM, Su-30M2, and MiG-31. The 23d Fighter Air Force Regiment is similar to the 22d, but is based further north at the Dzyomgi Air Base in Komsomolsk-on-Amur and lacks an interceptor squadron. The 277th Bomber Air Force Regiment is deployed at Khurba Air Base on the other side of Komsomolsk-on-Amur from the 23d Regiment. It has an equal mix of Su-24M and Su-24M2 fighter-bombers, with about two-dozen planes of each model. The 799th Separate Reconnaissance Aviation Regiment has some 36 Su-24MR aircraft, the reconnaissance variant of the Su-24 fighter-bomber. Based in Varfolomeyevka, the 799th is close to China and North

Korea and not far from Japan. The 18th Guards Attack Air Force Regiment, based near the 799th, houses more than 24 Su-25SM ground-attack aircraft. The 120th Aviation Regiment, based out of Domna Air Base near Chita, has 24 Su-30SM two-seater multi-role aircraft. The 11th Air Army has three air defense divisions, with units distributed throughout the Eastern MD. The 93d Division has units around Vladivostok, home to the Russian Pacific Fleet, while the 25th Division has units around Khabarovsk and Yuzhno-Sakhalinsk. The 26th Air Defense Division is the smallest of the three; while its headquarters are in Chita, its sole air defense regiment is in Dzhida, on the Russian border with Mongolia. The 93d Air Defense Division has two main combat formations: the 1533d and 589th Air Defense Regiments. The 25th Air Defense Division is composed of three air defense regiments and two radio-technical regiments. The 1529th and the 1530th Missile Air Defense Regiments are deployed in Khabarovsk and Lian, respectively. These units are equipped with S-400s, different S-300 variants, and shorter-range Pantsir-S1s. In contrast, the mobile 1724th Missile Air Defense Regiment is armed with the Antey S-300V for use against tactical ballistic and cruise missiles. Furthermore, the 25th Division has two radio-technical regiments, the 343d in Khabarovsk and the 39th in Yuzhno-Sakhalinsk, to act as mobile radar units for tracking and reporting enemy air activity as well as providing early warning. Additionally, some Army Aviation Bases scattered around the Eastern MD have helicopter detachments, mostly Mi-24s and Ka-52s (see table 20-2).¹²

Army	Location	Division	Capabilities
The 11th Air Force and Air Defense Army		22d Fighter Air Force Regiment	Sukhoi (Su)-35S Su-27SM and Su-30M2, multi-role fighters and MiG-31 interceptor
	Dzyomgi Air Base in Komso- molsk-on-Amur.	23d Fighter Air Force Regiment	Su-35S multirole fighters, Su-30SMs and Su-27s
	Khurba Air Base	277th Bomber Air Force Regiment	Su-24M and Su-24M2 fighter bombers
	Based in Varfolomeyevka	799th Separate Reconnaissance Aviation Regiment	24-36 Su-24MR aircraft, the reconnaissance variant of the Su-24 fighter-bomber
	Based near the 799th	18th Guards Attack Air Force Regiment	Su-25SM ground-attack aircraft
	Domna Air Base, near Chita	120th Aviation Regiment	Su-30SM two-seater multirole aircraft, Su-25s attack aircraft, and Su-25UB trainers
11th Air Army	Throughout the Eastern MD		Three air defense divisions
	Vladivostok	93d Division	S-400s, different S-300 variants, and Pantsyr S-1s
	Around Khabarovsk and Yuzhno-Sakhalinsk.	25th Division	Almaz S-300PS air defense SAM
		Mobile 1724th Missile Air Defense Regiment	Antey S-300V for use against tactical ballistic and cruise missiles
	Khabarovsk	34th Radio-Technical Regiment	Mobile radar units
	Yuzhno-Sakhalinsk	39th Radio-Technical Regiment	Mobile radar
	Dzhida	26th Air Defense Division	Buk-M1 air defense systems

Table 20-2. Russia's Order of Battle in the Eastern Military District: Major Aerospace Forces¹³

Pacific Fleet

The Russian Pacific Fleet is the second largest of the Russian Navy's four fleets, but many of its vessels are awaiting either repair, extensive modernization, or replacement. In 1995, Pacific Fleet Rear Admiral Valeriy Ryazantsev testified about the deplorable state of the Pacific Fleet by remarking that, "the Navy has embarked on a path of a coastal direction—we can't do anything in the ocean with what has remained to this day."¹⁴ However, the fleet has received more funding in the past decade, resulting in better training, maintenance, and equipment; it is also beginning to receive new strategic submarines and surface vessels to enhance its ocean-going capability.¹⁵ The fleet, headquartered in Vladivostok with an additional base in Petropavlovsk-Kamchatskiy, provides the Eastern MD with significant air power to supplement the limited land-based Air Force strength in the MD. Furthermore, its strategic submarines, formally known as ship submersible ballistic nuclear (SSBN) submarines and informally as "boomers," play an important role in sustaining Russia's nuclear deterrent. A priority of the Pacific Fleet's hunter-killer attack submarines (SSNs) and naval air power is to protect these SSBNs while they conduct their strategic patrols under the Sea of Okhotsk. The Kamchatka Peninsula and Russia's Kuril Islands separate this bastion near the Russian Coast from the rest of the Pacific Ocean, where U.S. carriers, attack submarines, and other U.S. and Japanese anti-submarine warfare assets have unimpeded access.¹⁶

The Pacific Fleet has more than 70 combat vessels, including some 50 warships, about 24 submarines of various classes, plus several nuclear icebreakers in its

order of battle.¹⁷ These forces are distributed between two flotillas, one based in Kamchatka and the other in Primorsky Krai, as well as a submarine command, a naval aviation command, an air defense division, and a coastal force with naval infantry. The Kamchatskaya Flotilla based on Kamchatka peninsula is the easternmost element of the Russian military. The flotilla has mostly support vessels—such as transport ships, tankers, tugboats, and rescue vessels—as well as the 114th Maritime Area Protection Brigade, comprised of the 117th Maritime Area Protection Battalion and the 66th Small Missile Boats Battalion. The 177th Battalion includes trawlers, a minesweeper, and *Grisha*-class (Project 1124M) corvettes. The 66th Small Missile Boats Battalion is comprised of *Nanuchka III*-class (Project 12341) corvettes with medium-range SS-N-9 Siren anti-ship missiles and the Osa-M radar-guided air defense missile system. The Primorskaya Flotilla, operating out of Primorsky Krai, has four combat formations, support ship formations, and an electronic intelligence (ELINT) unit. The 36th Division of Missile Ships contains the Pacific Fleet flagship—the *Varyag*, a *Slava*-class guided missile cruiser. The 39th Division of Missile Ships, based in the bays of Fokino, has *Udaloy*-class (Project 1155) and *Sovremenny*-class (Project 956) destroyers. The 165th Surface Ships Brigade has several battalions of maritime area protection troops, missile boats, minesweepers, and various kinds of corvettes. The 100th Landing Ships Brigade has amphibious vessels capable of conveying main battle tanks, armored personnel carriers and hundreds of troops.¹⁸

The Pacific Fleet's Submarine Command has two submarine divisions and one support ship group.¹⁹ The 10th Submarine Division consists of five *Oscar II*-class (Project 949A) nuclear cruise-missile submarines and

five *Akula*-class (Project 971) submarines, though several of the boats are undergoing repairs and upgrades to keep them operational for another 15-20 years.²⁰ The 19th Submarines Brigade, based in Uliss, has diesel-electric *Kilo*-class submarines armed with a variety of offensive, area denial, and defensive weapons.²¹ The Pacific Fleet has ground forces as well to deter any potential maritime intrusion. The Coastal Troops of the Pacific Fleet have two brigades of naval infantry, two electronic warfare (EW) centers, one control node, and two brigades of coastal defense missiles. The 520th Coastal Artillery Brigade on the Kuril Islands and on Sakhalin Island is equipped with 300 kilometer (km)-range supersonic Bastion-P mobile anti-ship missiles, while the 72d Separate Coastal Missile Brigade is equipped with SS-C-6 "Bal" mobile anti-ship cruise missiles.²² The Pacific Fleet's Naval Aviation Command is comprised of two separate units; the 7060th Naval Air Base in Elizovo in southeastern Kamchatka and the 7062d Naval Air Base in the Primorsky Krai. The Command operates various naval reconnaissance and ASW aircraft such as the Tu-142 and the Il-38, in addition to interceptors of the MiG-31 variant. The Pacific Fleet also contains a single air defense division on Kamchatka, the 1532d Air Defense Regiment, equipped with S-400s and Pantsir-S1.²³ After France decided not to sell its advanced *Mistral* amphibious assault ships to Russia, the Russian MoD elected to field the deck-based Ka-52K helicopters on the 7060th Naval Air Base in Kamchatka, capable of carrying kh-31 and kh-35 anti-ship missiles, the latter being supersonic (see table 20-3).²⁴

Division	Location	Divisions	Capabilities		
The Kamchatskaya Flotilla	Kamchatka Peninsula (easternmost element of the Russian military)		Mostly support vessels-- such as transport ships, tankers, tug boats, and rescue vessels		
		114th Maritime Area Protection	<i>Nanuchka III</i> -class corvettes		
		117th Maritime Area Protection	Trawlers, a minesweeper, and Project 1124M <i>Gri-sha</i> -class corvettes		
The Primorskaya Flotilla	Fokino	36th Missile Ships Division	Includes the Pacific Fleet flagship-- the <i>Varyag</i> , a <i>Slava</i> -class guided missile cruiser -- as well as other warships		
		39th Missile Ships Division	<i>Udaloy</i> -class (Project 1155) and <i>Sovremenny</i> -class (Project 956) destroyers		
		165th Missile Ships Brigade	Several battalions of maritime area protection and missile boats such as <i>Tarantula</i> -class corvettes and <i>Sonya</i> -class mine sweepers		
		100th Landing Ships Brigade	<i>Ropucha</i> -class tank landing ships, <i>Alligator</i> -class landing ship, and a <i>Dyugon</i> -class high-speed landing ship		
		19th Submarines Brigade	Diesel-electric <i>Kilo</i> -class (Project 877) submarines		
		Pacific Fleet's Submarine Command	Vilyuchinsk in Avacha Bay	10th Submarine Division	<i>Oscar II</i> -class (Project 949A) nuclear cruise-missile submarines and <i>Akula</i> -class Project 971 submarines
				25th Submarine Division	<i>Borei</i> -class (Project 955) and <i>Delta III</i> -class (Project 667BDR) ballistic missile submarines
7060th Naval Air Base and 7062d Naval Air Base	Naval reconnaissance and anti-submarine warfare aircraft and air defense systems				

Table 20-3. Russia's Order of Battle in the Eastern Military District: The Pacific Fleet²⁵

Nuclear Weapons and New Capabilities

Russia currently controls thousands of nuclear warheads that can be employed in the Asia-Pacific region. The 25th Submarine Division has five SSBN submarines: two new *Borei*-class (Project 955) and three of the *Delta III*-class (Project 667BDR). All of these submarines are based in Vilyuchinsk in the Krashennikov Bay on the Kamchatka Peninsula.²⁶ The *Delta III*-class nuclear ballistic missile submarines are Soviet-era boats, while the *Borei*-class is the first new type of ballistic missile submarine built after the Soviet Union's demise. The *Borei* boats in the Pacific Fleet are the K-550 *Aleksander Nevskiy* and the K-551 *Vladimir Monomakh*, commissioned in 2013 and 2014, respectively. Although the three-stage Bulava SLBM has a history of mixed performance success, it appears to be working reliably now. Other nuclear forces in the Russian Far East are Russia's long-range ballistic missiles and strategic aviation. Russia operates two types of nuclear capable heavy bombers: the Tu-160 Blackjack and Tu-95MS Bear H. Both can carry the nuclear AS-15 Kent (Kh-55) air-launched cruise missile (ALCM) and possibly gravity bombs, while the Tu-160 can also carry the nuclear AS-16 Kickback (Kh-15) short-range attack missile. The shorter-range systems available to the Eastern MD include the non-strategic launch systems that can be transported to different regions, including to the Far East. Russia's Iskander-M missiles (NATO designation: SS-26 Stone), transported on large trucks, have been deployed in Buryatia, where they can hit targets in Central Asia as well as China.²⁷ Russia also possesses other mobile, tactical surface-to-surface ballistic missiles such as the Scud-B/SS-1c Mod 1, Scud-B/SS-1c Mod 2, SS-21, SS-21 Mod 2, and SS-21 Mod 3. The

robust Russian air defense systems in the area that can defend these systems include the S-400, S-300, the 9K33 Osa, the 9K35 Strela-10, the Pantsir-S surface-to-air missile, and various anti-aircraft artillery.²⁸ In addition to serving as a strategic deterrent against the United States, Russian nuclear forces can negate the Chinese conventional advantage along the Sino-Russian frontier, which due to the great distances between Russia's main conventional deployments in Europe and the long China-Russia border.²⁹ Perhaps Russian conventional forces would have a slight technical advantage along with greater experience due to recent fighting in Georgia and Ukraine, but these factors may not equalize the situation, particularly since much of China's military technology is Russian-made or modeled on Russian systems.

In terms of new and future capabilities, the Eastern MD has been receiving more advanced aircrafts, such as the Su-34 and Su-35S.³⁰ Furthermore, the district's Mi-8AMTSh and Mi-24 helicopters are being sent to aviation plants in Zabaykalsky Krai, Khabarovsk Krai, and Ulan-Ude for upgrading with the new Vitebsk EW complex designed for protection against anti-aircraft missiles and radars.³¹ The Eastern MD is also obtaining new unmanned aerial vehicle (UAV) systems and their support personnel. The new vehicles can perform reconnaissance over vast swaths of normally inaccessible land in the Arctic from their locations at the newly restored Soviet-era bases on Kotelnny Island, Tiksi, Naryan-Mar, Alykel, Anadyr, Rogachev, and Nagursky.³² The ground forces are receiving the Armata family of armor, which includes a main battle tank (T-14), a heavy IFV (T-15), and other variations.³³ Furthermore, the Eastern MD is receiving the new Boomerang amphibious personnel carrier, whose

improved capabilities could be used in fighting for disputed Pacific islands.³⁴ As for air-defense capabilities, the Russian military is also deploying additional S-400s on the Kamchatka Peninsula.³⁵

Moreover, on the Kuril Islands, the Russian military has been upgrading its capabilities, reinforcing the already formidable Russian A2/AD capabilities in the region. In 2015, Defense Minister Sergei Shoigu said Moscow would establish new civilian and military facilities on the islands.³⁶ In late 2015, Shoigu announced that the MoD would construct hundreds of new buildings on the islands to develop their civil-military infrastructure. Tor-M2U air defense systems have also become operational on the Kuril Islands.³⁷ In March 2016, the MoD announced plans to deploy Bal and Bastion coastal systems and Eleron-3 UAVs on the islands.³⁸ Shoigu also stated that it would send a 3-month exploratory mission to review future basing options on the Greater Kuril Ridge.³⁹ In April 2017, Viktor Murakhovsky said that the new logistics support facilities on the Kurils “will significantly increase the patrolling time of the Pacific Fleet.”⁴⁰

In coming years, the Russian Pacific Fleet is supposed to receive multi-purpose, *Stregushchy*-class corvettes for littoral zone operations; upgrades to the fleet’s *Oscar*-class cruise missile submarines (SSGNs) that will extend their service lives at least another decade; and, six next-generation, multi-mission, very quiet, sophisticated, and expensive *Yasen*-class SSGNs.⁴¹ Furthermore, Russia is expanding its civilian shipbuilding capacity in the Far East. In March 2016, Russia’s Shipbuilding and Ship Repair Technology Center, aided by Germany’s Ingenieurtechnik und Maschinenbau (IMG) engineering consultancy, intensified their efforts to modernize the Zvezda shipyard

in Primorsky Krai. They want to transform the Zvezda Shipbuilding Complex into Russia's largest and most modern civilian shipyard. When this flagship regional development project is completed by the end of the decade, Zvezda is supposed to manufacture large vessels like ice-breaking supertankers as part of the Russian goal of having what National Security Council Secretary Nikolai Patrushev called "the world's first and most powerful Arctic fleet."⁴² Although these are civilian vessels, they have "dual-use" potential to support Russian national security goals in the Arctic region.

PRESENCE AND PARTNERSHIPS

More important than the modest increase in the Russian military's capabilities in the Russian Far East has been their growing activities, improved readiness levels, and cooperation with Asian militaries.

Increased Activities

The Russian military units in the Far East have seen the same increased activities, especially with larger and more frequent military exercises, witnessed in other Russian military districts.⁴³ The ground and naval forces of the Eastern MD have engaged in many exercises on Russian territory to assess and improve readiness, enhance joint operations between branches, and communicate strength to the West and China. In 2010, 2013, and 2014, the Russian military carried out its largest military exercises since the Cold War. The mid-July 2013 drill, which lasted a week, included approximately 160,000 personnel, 1,000 tanks, 130 warplanes, and 70 warships.⁴⁴ The September 2014 weeklong operational strategic exercise "Vostok 2014" included

about 100,000 troops, 1,500 tanks, 120 aircraft, and 70 ships. The drills combined ground, sea, air, and missile drills at some 20 ranges mostly on Sakhalin Island, the Kamchatka Peninsula, Chukotka, and the south Primorsky Territory. Vostock 2014 simulated coastal defense, joint air-ground-sea operations, conventional and nuclear strikes, and civil-military agency cooperation for logistics and strategic mobility.⁴⁵

The Eastern MD has many smaller drills. In 2015 alone, the Russian Air Force conducted exercises involving Su-27, Su-30, and Su-35 fighters deployed in Primorsky Krai, Khabarovsk, Zabaykalsy Krai, and Kamchatka.⁴⁶ In August 2015, the Pacific Fleet's missile and anti-submarine ships conducted artillery drills and missile tests off the coast of Kamchatka.⁴⁷ Russia also conducted joint naval exercises with the PLA Navy in the Sea of Japan that same month, testing marine landings, landing vessels, and naval aviation.⁴⁸ In September, Russia conducted naval exercises near Kamchatka with 2,000 service personnel, submarines, surface vessels, missile systems, and aviation units.⁴⁹ That same month, more than 500 personnel of the Redut and Rubezh missile battalions of the fleet's Kamchatka Coast Guard carried out live-fire exercises.⁵⁰ In early 2016, the Eastern MD held military exercises in the Kuril Islands with Battalion and Bastion missile systems as well as with new drones such as the Eleron-3 UAVs.⁵¹ Another major exercise occurred in April 2016, at the end of the winter training session, when over the course of 2 weeks some 100,000 personnel and more than 7,000 pieces of military hardware—including dozens of fighter, attack, and bomber planes as well as helicopters, submarines, surface combat ships, and naval support vessels—engaged in a dozen tactical drills along with a counterterrorist drill and

three tactical flight training exercises.⁵² In addition to testing readiness and showing resolve, these exercises and deployments aim to augment the area denial zone around the islands.⁵³

Arms Sales

Arms sales represent an important dimension of Russian military activity in the Asia-Pacific region. Besides earning revenue to buy new weapons and sustain the Russian defense sector, Moscow hopes such sales will enhance Russia's regional influence—directly over the recipients and indirectly over other concerned parties. From 2007 through 2014, Russian weapons sales to Asian countries—including hundreds of tanks, warplanes, helicopters, armored vehicles, and self-propelled guns, as well as thousands of missiles—amounted to more than US\$30 billion.⁵⁴ Russian arms sales to China have rebounded in recent years. These transfers were very prominent in the 1990s, and included complete warships and warplanes, but they sharply declined in the mid-2000s due to Russian concerns about alleged Chinese violations of Russian intellectual property (IP) agreements, as well as demands from Beijing that Russia offer the PLA more advanced weapons than the surplus Soviet-era systems previously offered. The past few years has seen a rapid renewal of these sales, as China has signed more rigorous IP agreements and Russia has offered the PLA more advanced weapons. Meanwhile, Southeast Asia has become a more important market for Russian weapons sales in recent years. Whereas the Association of Southeast Asian Nation (ASEAN) states bought only 6 percent of Russia's arms exports in 2010, that figure increased to 15 percent in 2015.⁵⁵ For

example, the Russian Helicopters company continues to service the combat helicopters Laos purchased from Russia in the 1990s.⁵⁶ Bangladesh has also bought the Russian-made Yak-130 subsonic two-seat advanced trainer aircraft, while Vietnam has expressed interest in obtaining the plane as well.⁵⁷ Rosoboronexport, the Russian state corporation that oversees the country's foreign weapons sales, also hopes to sell more advanced fighters to the Royal Malaysian Air Force, building on the earlier US\$900 million sale of 18 Su-30MKM (NATO reporting name: Flanker-H) fighters.⁵⁸ Looking ahead, Rosoboronexport believes that the Russian military operations in recent years will boost sales even further in coming years—such as missiles and naval platforms that Russia employed in Syria.⁵⁹

China

The People's Republic of China (PRC) and the Russian Federation continue to develop their defense partnership to encompass a wide range of activities, including arms sales and joint military exercises. Russia and China aim to avoid direct military conflicts, manage border security, sustain Eurasian stability, and balance the United States and its allies. Although both governments credibly deny intent to form a full-fledged bilateral defense alliance, the 2001 Sino-Russian Treaty of Good-Neighborliness and Friendly Cooperation does not include a mutual defense clause, but does include non-aggression and mutual consultations clauses. According to Russian and Chinese experts, the treaty also establishes a solid legal basis for extensive security cooperation between their countries.⁶⁰ The five core principles of the treaty include:

mutual respect of state sovereignty and territorial integrity, mutual non-aggression, mutual non-interference in each other's internal affairs, equality and mutual benefit and peaceful co-existence.⁶¹

Article 2 has a mutual non-aggression clause in which Russia and China commit never to employ or threaten the use of military force against each other. The article also extends their earlier nuclear missile non-targeting pledge with respect to the mutual adoption of a "no first use" nuclear weapons posture toward each other. Articles 3-5 affirm that each party will not challenge the others' political-economic orientation or territorial integrity, which in Moscow's case includes reaffirming recognition of Beijing's sovereignty over Taiwan. In Article 7, the parties commit to supporting arms reduction and confidence-building measures along their joint border. Article 8 contains a standard non-aggression clause:

The contracting parties shall not enter into any alliance or be a party to any bloc nor shall they embark on any such action, including the conclusion of such treaty with a third country, which compromises the sovereignty, security and territorial integrity of the other contracting party. Neither side of the contracting parties shall allow its territory to be used by a third country to jeopardize the national sovereignty, security and territorial integrity of the other contracting party.⁶²

The prohibition is extended to ban "the setting up of organizations or gangs" on one country's territory whose activities challenge "the sovereignty, security and territorial integrity of the other contracting party." Article 9 provides for holding immediate mutual consultations "When a situation arises in which one of the contracting parties deems that peace is being

threatened and undermined or its security interests are involved or when it is confronted with the threat of aggression.” Article 10 calls for regular meetings “at all levels” to allow both sides to exchange views and “co-ordinate their stand on bilateral ties and on important and urgent international issues of common concern so as to reinforce the strategic cooperative partnership of equality and trust.” Article 13 states that they will work to strengthen:

the central role of the United Nations as the most authoritative and most universal world organization composed of sovereign states in handling international affairs, particularly in the realm of peace and development and guarantee the major responsibility of the UN Security Council in the area of maintaining international peace and security.⁶³

Article 20 states that both governments:

in accordance with the laws of each country and the international obligation each has committed, shall actively cooperate in cracking down terrorists, splittists [commonly referred to as “separatists” in later declarations] and extremists, and in taking strong measures against criminal activities of organized crimes, illegal trafficking of drugs, psychotropic substances and weapons.⁶⁴

The treaty’s initial duration is 20 years, but the text allows for automatic 5-year extensions unless either party objects. Unlike the earlier bilateral defense treaty signed between China and the Soviet Union, however, the 2001 treaty lacks a mutual defense clause in which both parties commit to providing military assistance in case the other is attacked by a third party.⁶⁵

Russian-Chinese direct defense exchanges now encompass regular meetings between senior civilian

and military leaders. For example, in May 2016, Chief of the Main Operations Department of the Russian General Staff Lieutenant General Sergey Rudskoy and Deputy Chief of the Joint Staff Department of the Chinese Central Military Commission Admiral Sun Jianguo met in Beijing for the 18th round of the Russian-Chinese strategic dialogue. According to the PRC Defense Ministry:

The sides exchanged their opinions on international and regional situation in the sphere of security, military reforms, as well as cooperation between the Armed Forces of the two countries, and achieved broad consensus.⁶⁶

Furthermore, representatives of their national security communities regularly interact at multinational gatherings, especially within the framework of the Shanghai Cooperation Organization (SCO), Eurasia's most comprehensive security institution. The SCO, established in 2001, is comprised of China and Russia, along with four of the five Central Asian countries (excluding only Turkmenistan). A core obligation of SCO members is to fight what the Chinese call the "three evils" of terrorism, separatism, and extremism. The SCO has been described as the "security complement" to China's One Belt One Road initiative.⁶⁷ India and Pakistan officially joined the SCO in 2017, while Iran and Turkey have both expressed heightened membership interest.⁶⁸ Since 2003, the SCO members have organized a number of "anti-terrorist exercises" involving their armed forces and law enforcement personnel.

In addition to humanitarian relief, military exchanges, and numerous small-scale border drills, China and Russia have conducted major bilateral or multilateral joint drills on an almost yearly basis since 2005. Recent years have seen several of these ground

and naval drills in various locations annually. When he visited Beijing in September 2015, Shoigu called their military exercises “the most significant aspect” of their defense cooperation because the drills “contribute to improving battle training and authority of the armed forces of the two countries and show the readiness of defense agencies to respond to modern challenges and threats efficiently.”⁶⁹ When Admiral Sun Jianguo met with then-Deputy Defense Minister Anatoly Antonov on the sidelines of the June 2016 Shangri-La Defense Dialogue in Singapore, Antonov advocated deepening mutual defense cooperation within the SCO framework and added that the MoD was eager to conduct more bilateral anti-terror exercises and joint maritime drills.⁷⁰ In the summer of 2017, Russia and China held naval drills in the Baltic Sea, with a September exercise planned in the Sea of Japan and the Sea of Okhotsk.⁷¹ In June 2017, Russian President Vladimir Putin contended that the bilateral relationship has reached an “unprecedentedly high level,”⁷² while then-PRC Defense Minister Chang Wanquan said to expect “very large, enormous, important” joint military events between the two countries.⁷³

As pointed out by the U.S. Department of Defense’s 2017 report to Congress on Chinese military power, “China seeks some high-tech components and major end-items from abroad that it has difficulty producing domestically.”⁷⁴ A major source of such imports is Russia. From the mid-1990s until the mid-2000s, the PRC, along with India, was the largest buyer of Russian weapons. A few years ago, China cut its purchases of Russian weapons due to China’s rapidly developing indigenous defense industry and Beijing’s demands for more advanced systems than Moscow was willing to sell due to Russian concerns about Chinese reverse

engineering of Russian military technology. However, large-scale sales have resumed since 2012 to include the sale of new Russian submarines, aircraft, and air defense systems. Russia has relaxed its export limits on China to include selling sophisticated systems that until recently were out-of-bounds, such as the S-400 air defense missile system and Russia's advanced Su-35 fighter jet.⁷⁵ Other sales of key components enable China to compensate for critical technological defense industrial shortcomings, such as the advanced Russian engines used in the latest PLA's tanks, submarines, and military aircraft.⁷⁶ A new focus has been on jointly developing weapons systems for sales to third countries. Russia's willingness to sell advanced weapons systems to China despite the risks of facilitating Chinese reverse engineering and further strengthening the PRC's military-industrial complex can be explained by a Russian need to gain near-term defense revenue at a time of economic slowdown and severe sanctions. Furthermore, this could be an effort to sustain Russia's market share in China and the perceived Russian influence over the Chinese military establishment that these sales are believed to bring. For example, Russian-Chinese partnerships have arisen to develop heavy-lift helicopters and diesel-electric submarines.⁷⁷ The Russian military establishment remains enthusiastic about the partnership. Minister Shoigu suggested that Russia and China sign "a roadmap for the development of the military sector" between the two countries through 2020.⁷⁸

The Russian and Chinese Governments sometimes coordinate their stances on major international security issues. For example, the two countries have jointly opposed the deployment of the U.S.-made Terminal High Altitude Area Defense (THAAD) in South

Korea.⁷⁹ The two governments further insist that military means “should never be an option” for addressing the North Korean issue. Instead, Russia and China seek stability on the Korean Peninsula and decreased U.S. involvement in the region.⁸⁰ In 2016, they conducted their first joint missile defense exercise, a command post computer simulation, called “Aerospace Security-2016,” at the scientific research center of the Russian Aerospace Defense Forces. The Russian media said that the two countries “will use the results of the exercises to discuss proposals on Russian-Chinese military cooperation” in this field.⁸¹

Russia’s other objectives regarding the Koreas include averting another major war on the Korean Peninsula; preventing actions by the Democratic People’s Republic of Korea (DPRK) from prompting additional countries to obtain nuclear weapons or ballistic missiles; keeping Moscow a major security actor in the region; and, eventually, eliminating the DPRK’s nuclear program by peaceful means. Russians fear that the DPRK’s possession of nuclear arms could spark further nuclear proliferation in East Asia and beyond in response. Common Russian strategies to achieve these security goals include inducing North Korea to end its disruptive nuclear weapons and ballistic missile programs voluntarily, especially the DPRK’s provocative testing of these weapons, through economic assistance and security assurances; ending provocative actions by either the North or by the Republic of Korea (ROK)-U.S. alliance in response; promoting dialogue and minimizing use of coercion and punishment by keeping any unavoidable sanctions limited; and, maintaining a prominent role for Russian diplomacy regarding the Koreas through joint declarations, senior official trips to the region, and

promoting the Six-Party Talks and the United Nations Security Council as the main institutions for Korean diplomacy. However, Russian officials differ with Western governments on how to avoid such an adverse outcome and on the relative severity of the threat. As a matter of principle, Russian Government representatives stress their support for the Nuclear Non-Proliferation Treaty, which legitimizes Russia's status as one of the few nuclear weapons states. Yet, Russian strategists consider a nuclear-armed DPRK as posing only an indirect threat, since they do not foresee any reason why the DPRK would attack Russia.⁸² Russians remain more concerned about the DPRK's collapse than Pyongyang's intransigence regarding its nuclear and missile development programs. In addition to the widespread economic disruptions and humanitarian crisis that would result from the collapse of the current regime in Pyongyang, Russian officials are concerned that the substantial South Korean investment flowing into Russia would be redirected toward North Korea's rehabilitation. Hoped-for Chinese investment capital would be less likely to materialize in this case as well. Almost any conceivable armed clash on the Korean Peninsula would worsen Russia's relations with the parties to the conflict.

Russian military units near North Korea are available for any regional security contingency. For example, Russian missile defense forces have prepared to intercept any wayward DPRK missile heading toward Russian territory.⁸³ While criticizing the DPRK for testing nuclear weapons and long-range ballistic missiles, Russian Government representatives have also criticized U.S. sanctions and military responses to the DPRK threat. For example, the Russian ambassador to the ROK said in June 2016:

We believe that it would be wrong to shut all doors to a dialog with North Korea and to dismiss offhand all of its proposals that might play a positive role in improving the state of affairs in the Korean Peninsula.⁸⁴

He added that:

Russia is certain that it is possible to resolve the nuclear problem of the Korean peninsula only by political and diplomatic means and to refrain from excessive concentration of modern weapons in Northeast Asia, including the deployment of a regional segment of the United States' global missile defense.⁸⁵

At the June 2016 Shangri-La defense ministers conference in Singapore, Antonov, while insisting that Moscow would never recognize North Korea as a nuclear weapons state, advocated that other countries rely on "positive pressure" on the DPRK and "refrain from provocative and 'emotional' actions near the borders of North Korea, because it could worsen the situation in the region."⁸⁶ Referring to U.S. military moves in the region, especially the planned deployment of U.S. THAAD missiles defenses in South Korea, Antonov "warn[ed] against using Pyongyang's nuclear ambitions as a pretext for shifting the balance of power in the region."⁸⁷

ASEAN

Russia is expanding its military cooperation with Southeast Asian countries through bilateral dialogues and drills as well as through collective engagements with all of the members of ASEAN. An example of the former occurred when three Russian Navy ships conducted a port visit in the Philippines in 2012.⁸⁸ In March 2015, a Russian flotilla visited the Thai naval

base at Sattahip.⁸⁹ Russia's multilateral focus with Southeast Asia occurs primarily through the ASEAN Regional Forum, the East Asian Summit, and especially the ASEAN Defense Ministers' Meeting Plus (ADMM+). The ADMM+ comprises the 10 ASEAN countries (Cambodia, Thailand, Indonesia, Malaysia, Philippines, Singapore, Brunei, Laos, Vietnam, and Myanmar [Burma]) and the eight major powers active in the region—these so-called dialogue partners include China, India, South Korea, Japan, New Zealand, Australia, the United States, and Russia. The ADMM+ has organized working groups (maritime security, counterterrorism, peacekeeping operations, military medicine, disaster management and assistance, and humanitarian mine action) which focus on promoting cooperation against nontraditional security threats. A seventh working group on cybersecurity is currently being developed. ADMM+ also holds several exercises a year. The Russian Navy was one of the largest participants in the 2016 ADMM+ exercise, a maritime security and counterterrorism drill.⁹⁰ On April 25, 2016, delegations of the 10 ASEAN members, headed by the defense minister or the deputy defense minister, attended the fifth Moscow Security Conference and, in an informal meeting the day before the conference began, held their first collective session with the Russian defense minister. Shoigu said the discussions addressed fighting terrorism, countering other security threats, resolving international conflicts, managing disasters, and humanitarian action.⁹¹

From May 19 to 20, 2016, the third Russian-ASEAN summit occurred in Sochi, marking the first time one of these summits occurred on Russian territory. (The first summit in 2005 occurred in Kuala Lumpur, while the second took place in Hanoi in 2010.) All the ASEAN

governments participated except for the Philippines. The attendees covered security as well as socioeconomic cooperation such as Russian efforts to establish a free trade agreement between ASEAN and the Russia-led Eurasian Economic Union. In particular, they discussed sharing counterterrorism information, fighting narcotics trafficking and other transnational threats, and expanding Russian arms sales and other security assistance to ASEAN members.⁹² President Vladimir Putin also called for the “creation of a reliable and transparent security architecture in the Asia-Pacific region.”⁹³ Although there was no major arms deal announced at the event, the Russian Government signed defense cooperation agreements with Brunei, Cambodia, and Indonesia.⁹⁴

Vietnam has been Moscow’s closest strategic partner in Southeast Asia. Vietnam is the only country in Southeast Asia that grants Russian forces access to some military facilities, such as the Cam Ranh Bay, Southeast Asia’s premier deep-water port that had been one of the largest U.S. military bases in Asia during the 1960s and the most significant Soviet military base in Asia in the 1990s. The Soviets had provided extensive military assistance to North Vietnam, which extended after the war as Vietnam became an important ally against China. In return, the newly unified country of Vietnam hosted Soviet MiG-23 fighters, Tu-16 tankers, Tu-95 long-range bombers, and Tu-142 maritime reconnaissance aircraft along with Soviet surface warships and submarines.⁹⁵ As the Cold War wound down toward the end of the 1980s, so did the Soviet military presence in Vietnam. Among other challenges, the new Russian Government lacked the money to support sustained forward military deployments. In recent years, however, Russia has regained

preferential access to Vietnam, despite its formal neutrality, to provide logistical and intelligence support for some Russian military missions in the South Pacific. In particular, Russian Il-78 tanker aircraft staging out of the Cam Ranh Bay military airfield have, since early 2014, supported Tu-95MS Bear strategic bomber patrols over the central Pacific, including near the U.S. military base on Guam. Despite strained Sino-Vietnamese relations, Beijing has not objected to this access, presumably because it alienates Hanoi from Washington and because the Russian patrols divert U.S. forces from concentrating more on Chinese military activities in East Asia.⁹⁶

Thanks to its growing military budget and its strained relations with China, moreover, Vietnam has become a major Russian weapons buyer, purchasing some 80 percent of its arms from Russian suppliers in recent years.⁹⁷ For example, under a US\$3 billion contract signed in 2009, Russia is equipping the Vietnam's People's Navy (VPN) with six Type 636 *Kilo*-class diesel-electric submarines, armed with torpedoes, mines, and 300-km Klub supersonic cruise missiles that can hit naval and coastal targets.⁹⁸ The VPN is acquiring a half-dozen stealthy Project 1166 Gepard 3.9/Dinh Tien *Hoang*-class light frigates, armed with subsonic Kh-35E anti-ship missiles, to add to its flotilla of Russian-designed Project 12418 Molniya missile-armed fast attack craft and other fast patrol boats, corvettes, and frigates that are optimized for littoral combat. To replace its aging fleet of Soviet-era MiG-21, Su-22, and Su-27 fighters, the Vietnam's People's Air Force has already bought three dozen advanced Su-30MK2s and is considering purchasing the Su-35S. Most of the Army's tanks, helicopters, and other equipment also come from the Soviet Union or Russia, and the Army

is now considering buying T-90 main battle tanks to supplement its hundreds of T-72s and replace its T-55s. Vietnam produces some of these weapons systems and their armaments, like the Kh-35 anti-ship missile, under license from a Russian manufacturer.⁹⁹ Furthermore, Russia and India, which has experience operating the export version of Russian weapons, provide most of the training for the Vietnamese armed forces.¹⁰⁰ The Indian and Russian Governments recently agreed to sell their co-developed Brahmos supersonic anti-ship missile to Vietnam (despite reported Chinese objections) as well as to Chile, South Africa, and the United Arab Emirates (UAE). They are discussing such a sale with many other countries, including Malaysia, South Korea, Singapore, Thailand, and the Philippines.¹⁰¹ Russian analysts do not believe that the May 2016 decision to relax restrictions on U.S. arms sales to Vietnam will substantially weaken Russia's premier arms supplier position any time soon.¹⁰²

Moscow has continued to strengthen its political, economic, and military ties with Myanmar. Russian military sales to Myanmar include four MiG-29 jet fighters in both 2001 and 2002, and the opening of a MiG office in Yangon in 2006. In November 2013, the Russian Navy sent three warships to Yangon, the first port call ever for modern-era Russian warships.¹⁰³ In fulfillment of a 2015 contract, Russia is delivering three Yakovlev Yak-130 (Mitten) combat-ready trainer planes and associated equipment to Myanmar this year. On May 5, 2016, the two countries adopted an enhanced military cooperation agreement.¹⁰⁴ Russia is also helping Myanmar to launch its civilian nuclear energy program despite international concerns about the country's proliferation potential.¹⁰⁵

Indonesia is another Southeast Asian country with which Russia has a long history of military and technical cooperation. Russian arms sales to the country made a breakthrough in 2003, when Indonesia decided to purchase 24 Su-27 and Su-30 fighters. In September 2007, Russia signed a US\$1 billion arms contract, with easy credit and less stringent end-user requirements than those offered by Western countries, to provide Indonesia with tanks, helicopters, submarines, and fighter jets.¹⁰⁶ Indonesia has also bought Russian Mil Mi-35 and Mi-17 helicopters, BMP-3F infantry fighting vehicles, BTR-80A armored personnel carriers, and AK-102 assault rifles.¹⁰⁷ After meeting with Indonesian President Joko Widodo in Sochi in May 2016, Putin told the media, “We have agreed to widen contacts between the defense ministries and security agencies.”¹⁰⁸ The Presidents did not discuss the details of the agreement, but sources said it provides for the joint manufacturing of munitions and perhaps some weapons in Indonesia, the transfer of more Russian defense technology, increased mutual counterterrorism intelligence sharing, and expanded Russian training and education of Indonesian military personnel.¹⁰⁹ The two countries have been negotiating for years over the possible purchase of Russian Su-35S Flanker-E (export-version) multi-role fighters to supplement the Su-27 and Su-30s already in Indonesia’s fleet, and to replace aging U.S.-made F-5E/F fighter planes supplied before the United States decided to curtail weapons sales to Indonesia over human rights reasons.¹¹⁰ However, the parties have failed to resolve differences over Indonesia’s requirements for technology transfer and other issues.¹¹¹ Rosoboronexport also anticipates that the Indonesian Marine Corps will purchase more Russian-made BMP-3F infantry fighting vehicles.¹¹²

The Russian military presence in Thailand is less pronounced than with some of its neighbors, but in recent years, there has also been an increase in Russian defense ties with Thailand. Following the 2014 military coup carried out by Prayut Chan-o-cha, the United States curtailed military ties with Thailand, leading the new Thai regime to pursue security ties with Russia and China. Russia has already delivered military combat helicopters and aspires to supply tanks, counterterrorism training, and security intelligence.¹¹³ Russian warships visited Sattahip in March 2015. The Thai defense minister made a 4-day visit to Russia in March 2016 to develop these ties. Prime Minister Chan-o-cha met with Putin on the sidelines of the Russia-ASEAN summit in Sochi in May 2016. Their meeting yielded additional economic and security agreements.¹¹⁴ However, Russia suffered a setback when Thailand chose to purchase Chinese MBT-3000 tanks, rather than Russia's T-90s due to the former's lower cost—an indication that Russian weapons may face rising competition from Chinese arms exports that can undercut Russian prices in budget-conscious markets.¹¹⁵ Moscow also sought to develop defense ties with the Philippines as a new ASEAN partner by exploiting the alienation between the Barack Obama administration and Philippine President Rodrigo Duterte.¹¹⁶

Japan

Moscow has traditionally refrained from backing Beijing's territorial claims against Tokyo, while China has not supported Russia's annexation of the four Southern Kuril Islands (Kunashir, Iturup, Shikotan, and the Habomai group of islets), which Japan refers to as its "Northern Territories." Despite decades of talks,

Moscow and Tokyo have proved unable to resolve their impasse over the islands. The Russian Government position is that Japan must sign a peace treaty with Moscow, develop comprehensive economic and other ties with Russia, and pursue a foreign policy more independent of the United States, beginning with curtailing the Ukraine-related sanctions.¹¹⁷ Some Japanese hope to regain the islands and keep Moscow from aligning with Beijing against Tokyo by developing these economic and energy ties.¹¹⁸ Few Japanese are willing to sacrifice their vital security ties with the United States in a gambit that better ties with Russia would protect Japan from China.

According to the Japanese Government, the Russian air patrols near Japan—directed against the U.S. military facilities on Japan as well as against the Japanese Self-Defense Forces (JSDF)—have at times exceeded Cold War levels. In February 2013, for instance, Japanese F-2 fighter jets intercepted two Russian Su-27 fighters off Rishiri Island in Hokkaido.¹¹⁹ A similar incident involving two Russian Tu-95 bombers occurred in September 2013, near Okinoshima Island, north of Fukuoka on Kyushi Island. In September 2015, four Japanese fighter jets intercepted a Russian plane off the Nemuro Peninsula in Hokkaido headed toward the Kuril Islands.¹²⁰ On January 26, 2016, Japanese planes again scrambled to intercept Russian Tu-95 bombers that approached Japan's airspace from Russia's Primorsky province, flew over the Sea of Japan, and eventually circumvented the perimeter of Japan's territorial airspace, encompassing the four main Japanese islands of Honshu, Kyushu, Shikoku, and Hokkaido, before returning to Russia.¹²¹ Russian air incursions increased significantly after Tokyo joined other Western governments in imposing sanctions on Russia following

the March 2014 annexation of Crimea.¹²² That year, the JSDF scrambled more frequently against Russian aviation incursions near Japan than against approaching Chinese warplanes.¹²³ Tokyo's sanctions decision and Prime Minister Shinzo Abe's decision to visit Ukraine in the summer of 2015 also hardened Russian rhetoric regarding Japan.¹²⁴ However, Abe has not let the Russian military deployments interrupt his efforts to reach a diplomatic settlement with Moscow. He has met with Putin more than a dozen times since 2013 in an effort to improve ties.¹²⁵ Abe went to Sochi in May 2016, to try to launch a "new approach" to resolving the territorial dispute.¹²⁶ Afterwards Putin and Russian Foreign Minister Sergey Lavrov again insisted that Moscow did not intend to return the islands any time soon.¹²⁷ At the June 2017 St. Petersburg International Economic Forum (SPIEF), Putin said that the Russian control of the Kurils was valuable to counter U.S. military activities in the region and, conversely, expressed concern that returning the islands to Japan could allow the Pentagon to place missile defenses on the island.¹²⁸

ASSESSMENT

Russia's Far Eastern armed forces have benefited from the country's overall military modernization program during the last few years. They have augmented their capabilities, readiness, and presence. They have therefore improved their ability to deter and, if necessary, win wars against China and Japan; prepare for security contingencies on the Korean Peninsula; and assure Russia's control over its land and maritime territories. Thanks to their nuclear deterrent and strong anti-access/area denial (A2/AD) capabilities, Russian forces in the Eastern MD should prove capable

of repelling any unlikely attack from either a state or nonstate actor in the region. Though it is difficult to conceive of an actual war in Asia that would involve Russia, the Russian armed forces could perhaps offset some conventional disadvantages through threatening or employing warfare above (nuclear) as well as below (hybrid) the conventional level.

Although U.S. defense discourse regarding Asia focuses on growing Chinese military capabilities, former Commander of the U.S. Pacific Fleet Admiral Harry B. Harris, Jr., still considers the Russian forces in the Pacific a formidable threat.¹²⁹ Similarly, former Commander of the U.S. Army Pacific Command General Vincent Brooks has described the Russian military in East Asia as “a spoiler to our interests and the interests of others” and called its strategic bomber flights “provocative.”¹³⁰ While a deliberate Russian-U.S. military engagement in Asia is unlikely, the more frequent Russian military activities increase the likelihood of accidents involving their military forces, such as in April 2016, when two Russian fighter-bombers flew within a dozen meters of the U.S.S. *Donald Cook* in the Baltic Sea.¹³¹ More recently, after the United States downed a Syrian jet in June 2017, the Russian Ministry of Defense said it would track U.S. planes in Syria more closely.¹³²

Furthermore, the increased Russian defense activities in the Far East demonstrates renewed Russian military capabilities in general and, specifically, shows that Russia is a Pacific power. Moscow’s great power status is important, for example, to bolster Russia’s drive to remain a key player in the Korean Peninsula talks. Russian showmanship was evident in 2014, when a Russian naval patrol conducted drills in the Coral Sea while Putin was attending the G-20 Summit in nearby

Brisbane, reminding the host Australian Government and its allies that there were limits to how much they could isolate Russia due to its military power. At a time of increasing Russian international isolation due to the Ukraine conflict and other factors, which has resulted in the suspension of NATO-Russia cooperative projects and Russia's exclusion from the G-8, Moscow values defense engagement as a means of reducing that isolation. Moscow continues to deepen relations with Beijing through both arms sales and joint military exercises, though technology sharing remains a contentious subject. The expanding Russian defense budget has also generated increased Russian military activism in many regions, including the Pacific. By providing evidence that Russian weapons continue to perform effectively, Russian military activities could entice foreign buyers of Russian military technologies, which Moscow believes yields diplomatic influence as well as export revenue. Of note, a few days before the June 2016 Shangri-La defense ministerial summit, the Russian cruiser *Varyag* conducted a port visit to Singapore, the conference site, and hosted a reception for the ASEAN states and their dialogue partners, which offered a convenient opportunity to peddle Russian arms to Southeast Asian military chiefs.¹³³ Meanwhile, the aggressive patrols against Japan punish Tokyo for joining other Western countries in imposing sanctions on Russia over Ukraine, gain information about the U.S. military forces based in Japan, and enhance Moscow's leverage and pressure on Japan to make concessions on their territorial and other disputes. The patrols may also aim to curry favor in Beijing by distracting Tokyo from concentrating its military resources against China, but they could as well plausibly aim to remind China about Moscow's military and political power in Asia.

The Russian Government denies any aspirations to acquire foreign military bases in the Asia-Pacific region. For example, Russian officials dismissed reports that Russia sought a new naval base in Fiji, to which Russia recently supplied weapons and accompanying in-country training.¹³⁴ However, Russia has been expanding its basing infrastructure in the Far East, including on the Kurils; it has priority access rights to Vietnam's Cam Ranh Bay; and, it may want to acquire more overseas military access rights in the future.¹³⁵ As one Russian expert observed, "If Russia wants to be continuously present in the distant areas of the World Ocean, it should have some maneuverable deployment bases, so the ships could be serviced and repaired in dry-docks."¹³⁶ Without such bases, the Eastern MD will have limited power projection capabilities for at least several more years. Most Pacific Fleet combat vessels are still comprised of aging Soviet ships or newer but small multipurpose corvettes with limited capabilities beyond littoral defense. The fleet would find it difficult to engage in sustained major "blue-water" operations far away from the Russian coast. While adequate for coastal defenses, strategic nuclear retaliation, and limited Arctic contingencies, Russian conventional forces lag behind the growing U.S. and Chinese capabilities in the region. Furthermore, Russian-South Korean defense relations have remained limited due to the close military alliance between the Republic of Korea and the United States, while Russian defense sales and military cooperation with North Korea are negligible due to Pyongyang's poverty and isolationist inclination. The Russian-Chinese exercises, while expanding in scope, have not yet established a solid foundation for an effective joint military operation. Despite Russian aspirations to the contrary, Russia is becoming a

junior player to China in the region, something Moscow sorely wishes to avoid.¹³⁷

Perhaps the major uncertainty in assessing future Russian military trends in the region is anticipating how deeply Russia's economic malaise – due to falling energy export revenue, depreciating currency, sanctions, and other challenges – will impede the planned increase in Russian military capabilities. Thus far, the government has generally sustained the elevated defense spending of recent years despite cutbacks in many other areas of government spending.¹³⁸ The drop in world hydrocarbon prices has disrupted Russia's public finances since most of the government's revenue derives from the oil and gas exports. The price of oil per barrel has fallen substantially since the time when Moscow made its ambitious defense spending forecasts a few years ago. Western sanctions on Russia have compounded these problems by limiting Russian access to foreign credit and technologies. The strained resources situation, exacerbated by corruption, endangers Russia's shipbuilding revival and other infrastructure projects. Russia's economic woes could well affect Moscow's military expansion plans in the Far East, a region where fewer pressing military challenges exist than in some other regions. There are already indications that these and other complications will delay Russian plans to revitalize the Pacific Fleet and Eastern MD. Yet, the economic setbacks are something of a wildcard. Since they threaten Putin's performance-based popularity, the Russian leader could see a need for more belligerent foreign adventures to rally Russians behind the regime. Having already played out scenarios in Europe and the Middle East, Moscow might next seek out Asian-Pacific options.

ENDNOTES - CHAPTER 20

1. The author would like to thank Lance Alred, Matthew Camp, Elina Chebotayeva, Evangeline Clapp, Jake Eberts, Michael Greco, Nathan Heath, Nicholas Haigh, Neil Jackson, Katherine Kidney, Zihao Liu, Olivia Meira, Natalie Minton, Michael Ravitsky, Kathryn Schmidt, Jonathan Scolare, Leah Silinsky, Meredith Stonitsch, John Thompson Devin Thorne, and Chris Wickham for providing research or editorial assistance with this chapter at various times over the past few years.

2. Defense Intelligence Agency (DIA), "Russia Military Power: Building a Military to Support Great Power Aspirations," DIA-11-1704-161, Washington, DC: U.S. Defense Intelligence Agency, 2017, pp. 14-15, available from <http://www.dia.mil/Portals/27/Documents/News/Military%20Power%20Publications/Russia%20Military%20Power%20Report%202017.pdf>.

3. "'Unprecedented steps': Russian military explores Kuril chain island as potential Pacific Fleet base," RT, May 27, 2016, available from <https://www.rt.comnews/344539-kuril-island-russian-navy/>.

4. DIA, "Russia Military Power."

5. Hans M. Kristensen, "Russian Pacific Fleet Prepares for Arrival of New Missile Submarines," Federation of American Scientists, September 14, 2015, available from <https://fas.org/blogs/security/2015/09/pacificfleet/>.

6. Stephen Blank, "Imperial Ambitions: Russia's Military Buildup," *World Affairs Journal*, May/June 2015, available from <http://www.worldaffairsjournal.org/article/imperial-ambitions-russia%E2%80%99s-military-buildup>.

7. "'Unprecedented steps': Russian Military Explores Kuril Chain Island as Potential Pacific Fleet Base."

8. "Russia's Eastern Military District Infrastructure Development Remains Priority – Official," TASS, May 31, 2016, available from <http://tass.ru/en/defense/879148>.

9. The data in this chapter comes from various public sources; when they contradict, which they often do, the author made his

best assessment of their accuracy. DIA, "Russia Military Power"; "Chapter 5: Russia and Eurasia," in *The Military Balance 2016*, Vol. 116, Iss. 1, London, United Kingdom (UK): The International Institute for Strategic Studies, 2016, pp. 163-210; "Russian Army Order of Battle," Global Security, available from <http://www.globalsecurity.org/military/world/russia/army-orbat.htm#voeastern>; "Russian Defense Ministry to build up strength of airborne assault divisions," TASS, July 30, 2015, available from <http://tass.com/russia/811613>; "Voiskovii Chasti Rossii" ("Military Units of Russia"), n.d., available from <https://voinskayachast.net>; "Vostochnii Voennii Okryg" ("The Eastern Military District"), Milkavkaz, archived screenshot dated April 18, 2017, available from <http://archive.li/Z0h38#selection-441.1-441.25>; Oleg Mukhin, "20-aya Armiya Nashla Komandyushego na Sakhaline" ("The 20th Army Found a Commander in Sakhalin"), *Kommersant*, February 3, 2017, available from <http://www.kommersant.ru/doc/3207955>; "Russian Armed Forces," baummil, 2005, available from <http://baummil.org/RussianArmedForces.html>; Denis Mokrushin, "36-ya Motostrelkovaya Brigada" ("The 36th Motorized Rifle Brigade") livejournal, February 26, 2011, available from <http://twower.livejournal.com/499098.html>; "35th Red Banner Combined Arms Army," ww2.dk, n.d., available from <http://www.ww2.dk/new/army/armies/35oa.htm>.

10. According to open-source data, including "Chapter 5: Russia and Eurasia," pp. 163-210; "Russian Army Order of Battle," Global Security, n.d., available from <http://www.globalsecurity.org/military/world/russia/army-orbat.htm#voeastern>; "Russian Defense Ministry to Build Up Strength of Airborne Assault Divisions," TASS, July 30, 2015, available from <http://tass.com/russia/811613>; "Voiskovii Chasti Rossii" ("Military Units of Russia"); "Vostochnii Voennii Okryg" ("The Eastern Military District"); Milkavkaz, archived screenshot dated April 18, 2017; Mukhin; Mokrushin; "35th Red Banner Combined Arms Army," ww2.dk, n.d., available from <http://www.ww2.dk/new/army/armies/35oa.htm>; "Eastern Military District—OSC East," warfare.be, n.d., available from <http://archive.is/zTy8s>; Dmitry Boltenkov, Aleksey Gayday, Anton Karnaukhov, Anton Lavrov, and Vyacheslav Tseluiko, *Russia's New Army*, Moscow, Russia: CAST, 2011, available from http://www.cast.ru/files/book/NewArmy_sm.pdf.

11. "Chapter 5: Russia and Eurasia"; "Russian Army Order of Battle"; "Voiskovii Chasti Rossii" ("Military Units of Russia"); "Vostochnii Voennii Okryg" ("The Eastern Military District"); Milkavkaz, archived screenshot; Mukhin.

12. "Chapter 5: Russia and Eurasia"; "Russian Army Order of Battle"; Milkavkaz, archived screenshot; Mukhin; "Russian Armed Forces."

13. See endnote 10 in this chapter.

14. Felix K. Chang, "The Unraveling of Russia's Far Eastern Power," *Orbis*, Vol. 43, Iss. 2, Spring 1999, p. 274.

15. Rakesh Krishnan Simha, "Why Russian subs will once again dominate the Pacific," *Russia Beyond*, July 22, 2016, available from http://rbth.com/blogs/continental_drift/2016/07/21/why-russian-subs-will-once-again-dominate-the-pacific_613635; Rakesh Krishnan Simha, "Russian Pacific Fleet's resurgence sets off alarm bells in Washington," *Russia Beyond*, February 6, 2017, available from http://rbth.com/blogs/continental_drift/2017/02/06/russian-pacific-fleets-resurgence-sets-off-alarm-bells-in-washington_696366.

16. Mina Pollmann and J. Berkshire Miller, "Russia vs. Japan: Asia's Forgotten Island Fight It's not just the South China Sea," *The National Interest*, April 26, 2016, available from <http://www.nationalinterest.org/feature/russia-vs-japan-asias-forgotten-island-fight-15942>.

17. "Chapter 5: Russia and Eurasia"; "Russian Army Order of Battle"; "Russia's Military Units"; "The Eastern Military District"; "Russian Armed Forces"; and "RussianShips.info 2016," available from <http://russiaships.info/today/>.

18. "Landing craft Project 21820 Dyugon," *RussianShips.info*, n.d., available from http://russiaships.info/eng/warships/project_21820.htm.

19. "Eastern Military District-OSC East," *warfare.be*, archived page dtd. February 19, 2013, available from <http://archive.is/zTy8s>.

20. "Boeviy Korabli Rossiiskoi Federatsii—2016" ("Naval Ships of the Russian Federation—2016"), *Russiaships.info*,

August 16, 2016, available from www.russianships.info/; Nikolai Novichkov and Peter Felstead, "Russian Project 971 submarines to be armed with Kalibr missiles," *IHS Jane's Defence Weekly*, April 24, 2016; CSIS Missile Defense Project, "SS-N-27 'Sizzler'," Missile Threat, January 9, 2017, last modified June 15, 2018, available from <https://missilethreat.csis.org/missile/ss-n-27-sizzler/>.

21. "SSK Kilo Class (Type 877EKM)," Naval-Technology, n.d., available from <http://www.naval-technology.com/projects/kilo877/>.

22. "Eastern Military District-OSC East"; Dmitry Smirnov, "Beregovoy Raketnyi Kompleks" ("3K60 'Bal' Coastal Missile System") n.d., and "3K60 'Bal' Beregovoi Raketnyi Kompleks" ("3K60 SSC-6 Sennight Coastal Missile Complex 'Bal'"), n.d., Army.Lv, available from <http://army.lv/ru/3k60/3201/765>.

23. "Eastern Military District-OSC East."

24. "Russia's Ka-52 Alligator Scout-Attack Helicopters," *Defense Industry Daily*, January 4, 2016, available from <https://web.archive.org/web/20160205222203/http://www.defenseindustrydaily.com/russias-ka-52-alligator-05150/>.

25. See endnote 10 in this chapter.

26. Pavel Podvig, "Strategic fleet," Russian Strategic Nuclear Forces, June 20, 2017, available from <http://russianforces.org/navy/>.

27. "Russia's Eastern Military District Receives Iskander-M Missile Systems," *Sputnik*, November 3, 2015, available from <http://sputniknews.com/military/20151103/1029525064/russia-iskander-missiles-buryatia.html>.

28. "Vostochnyi Voennyi Okryg Polychit Su-35, Su-34, Pantsir-S, Iskander-M, Bastion, Tor-M2U i Mnogoe Drygoe" ("The Eastern Military District Will Receive Su-35, Su-34, 'Pantsir-S', Iskander-M, Bastion, Tor-M2U and much more"), in24.org, January 23, 2016, available from <http://in24.org/world/20276>.

29. Richard Weitz, "Russian Tactical Nuclear Weapons: Current Policies and Future Trends," in Stephen Blank, ed., *Russian Nuclear Weapons: Past, Present, and Future*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, 2011, pp.

378-379, available from <http://ssi.armywarcollege.edu/pubs/display.cfm?pubID=1087>; Andre de Nesnera, "Next US-Russia Arms Talks Could Involve Short-Range Nuclear Weapons," *Voice of America News*, July 2, 2013, available from <http://www.voanews.com/content/next-us-russia-arms-talks-could-involve-shortrange-nuclear-weapons/1693761.html>.

30. Franz-Stefan Gady, "What to Expect from Russia's Pacific Fleet in 2015," *The Diplomat*, March 2, 2015, available from <http://thediplomat.com/2015/03/what-to-expect-from-russias-pacific-fleet-in-2015/>.

31. "Helicopters of the Eastern MD army aviation airbase received new EW complex Vitebsk," April 8, 2016, available from http://eng.mil.ru/en/news_page/country/more.htm?id=12082410@egNews.

32. "New Drone Squadron protects Russian Interests in the Arctic," *Siberian Times*, November 23, 2015, available from <http://siberiantimes.com/other/others/news/n0496-new-drone-squadron-protects-russian-interests-in-the-arctic/>.

33. Dave Majumdar, "Surprise: Russia's Lethal T-14 Armata Tank Is in Production," *The Buzz*, blog of *The National Interest*, March 13, 2016, available from <http://nationalinterest.org/blog/the-buzz/surprise-russias-lethal-t-14-armata-tank-production-15480>.

34. "Chapter 1: Armoured fighting vehicles: renewed relevance; technological progress," in *The Military Balance 2016*, Vol. 116, Iss. 1, London, United Kingdom (UK): The International Institute for Strategic Studies, 2016, p. 8; Tamir Eshel, "New Russian Armor—Part III: Boomerang 8×8 AFV," *Defense Update*, May 10, 2015, available from http://defense-update.com/20150510_boomerang-2.html.

35. Rebecca M. Miller, "Russia's Massive Military Buildup in Asia," *The Buzz*, blog of *The National Interest*, April 21, 2015, available from <http://nationalinterest.org/blog/the-buzz/russias-massive-military-buildup-asia-12691>.

36. "Russia Beefs Up Kurils Military Base Despite Japan Tensions," *BBC News*, October 22, 2015, available from <http://www.bbc.com/news/world-europe-34604146>; "Russia Considering

Building Naval Base in Area Including Disputed Isles,” *The Japan Times*, March 26, 2016, available from http://www.japantimes.co.jp/news/2016/03/26/national/russia-considering-building-naval-base-in-area-including-disputed-isles/#.Vobhz_krKM8; “Russia Will Build 392 Buildings for Military Garrisons in Kuril Islands—Defense Minister,” TASS, December 1, 2015, available from <http://tass.ru/en/defense/840609>.

37. “Russian Navy may create Pacific Fleet base in Kuril Islands—defense minister,” TASS, March 25, 2016, available from <http://tass.ru/en/defense/865081>.

38. “Russia’s Deployment on the Kurils Signals Severe Limitations for US in Asia,” *Sputnik*, March 30, 2016, available from <http://sputniknews.com/russia/20160330/1037189572/russia-base-Kuril-islands.html>; TASS, “Russia to deploy Bastion-P ASM system to Kurils,” *Russia Beyond*, August 8, 2016, available from http://rbth.com/news/2016/08/08/russia-to-deploy-bastion-p-asm-system-to-kurils_619227.

39. “Russian Navy may create Pacific Fleet base in Kuril Islands—defense minister,” TASS, March 25, 2016, available from <http://tass.ru/en/defense/865081>.

40. Vitaliy An’lov, “Chyem Tikhookyanskii Flot Rossii Mozhet Otvetit VMS SShA” (“How the Russian Pacific Fleet Can Respond to the US Navy”), *RIA Novosti*, April 21, 2017, available from https://ria.ru/defense_safety/20170421/1492683612.html.

41. “Russia: Reviving the Pacific Fleet,” *Stratfor*, March 25, 2015, available from <https://www.stratfor.com/analysis/russia-reviving-pacific-fleet/>; Franz-Stefan Gady, “What to Expect From Russia’s Pacific Fleet in 2015,” *The Diplomat*, March 2, 2015, available from <http://thediplomat.com/2015/03/what-to-expect-from-russias-pacific-fleet-in-2015/>.

42. “New Mega-Shipyard for Russia,” *The Maritime Executive*, March 6, 2016, available from <http://www.maritime-executive.com/article/new-mega-shipyard-for-russia>.

43. Julian Cooper, “The Military Face of ‘Militant Russia,’” *Russia in Global Affairs*, No. 1, February 13, 2016, available from

<http://eng.globalaffairs.ru/number/The-Military-Face-of-Militant-Russia--17979>.

44. "Russian Military Stages Biggest War Games since Soviet Times," *Russia Today*, updated July 15, 2013, available from <https://www.rt.com/news/russia-war-games-far-east-084/>.

45. Rebecca M. Miller, "Russia's Massive Military Buildup in Asia," *The Buzz*, blog of *The National Interest*, April 21, 2015, available from <http://nationalinterest.org/blog/the-buzz/russias-massive-military-buildup-asia-12691>; "Major military drills underway against simulated enemy in seas of Okhotsk and Japan," *Siberian Times*, September 15, 2014, available from <http://siberiantimes.com/other/others/news/major-military-drills-underway-against-simulated-enemy-in-seas-of-okhotsk-and-japan/>.

46. "Russia holds large-scale air force drills in Far East," *Xinhua*, April 1, 2015, available from http://news.xinhuanet.com/english/2015-04/01/c_134117270.htm.

47. "Russian Navy to Conduct Artillery Drills in Pacific Ocean," *Sputnik*, August 18, 2015, available from <http://sputniknews.com/russia/20150818/1025863673.html>.

48. "Russia, China to Stage Naval Exercises in Sea of Japan in Late August," *Sputnik*, July 17, 2015, available from <http://sputniknews.com/military/20150717/1024739199.html>.

49. "Russia Holds Naval Drills in Far East with Aircraft, Nuclear Subs, Missiles," *Sputnik*, September 24, 2015, available from <http://sputniknews.com/military/20150924/1027438985.html>.

50. "Russian Missile Forces in Kamchatka Complete Pacific Coast Drills," *Sputnik*, September 23, 2015, available from <http://sputniknews.com/military/20150923/1027375624.html>.

51. Agence France-Presse, "Russia to Deploy Missile Systems on Kuril Islands, Defense Minister Says," *Defense News*, March 25, 2016, available from <http://www.defensenews.com/story/defense/international/asia-pacific/2016/03/25/russia-japan-kuril-islands/82261548/>.

52. "About 30,000 troops of Russia's Eastern Military District take part in snap checks," TASS, April 29, 2016, available from <http://tass.ru/en/defense/873288>.

53. "Creation of Russian Navy Base on Kuril Islands 'Contradicts Japan Position'," *Sputnik*, March 28, 2016, available from <http://sputniknews.com/russia/20160328/1037096795/base-islands-position-tokyo.html>.

54. "Russia's positions on Asia-Pacific arms market," TASS, April 19, 2016, available from <http://tass.ru/en/defense/870932>.

55. Eiji Furukawa, "Moscow enhances defense ties with ASEAN at summit," *Nikkei Asian Review*, May 21, 2016, available from <https://asia.nikkei.com/Politics/Moscow-enhances-defense-ties-with-ASEAN-at-summit>.

56. Prashanth Parameswaran, "Russia, Laos Ink New Military Helicopter Deal," *The Diplomat*, May 24, 2016, available from <http://thediplomat.com/2016/05/russia-laos-ink-new-military-helicopter-deal/>.

57. Prashanth Parameswaran, "Russia May Deliver New Fighter Jets to Myanmar by End of 2016," *The Diplomat*, April 27, 2016, available from <http://thediplomat.com/2016/04/russia-may-deliver-new-fighter-jets-to-myanmar-by-end-of-2016/>.

58. "Russia's positions on Asia-Pacific arms market," TASS, April 19, 2016, available from <http://tass.ru/en/defense/870932>.

59. "Russia's positions on Asia-Pacific arms market," TASS, April 19, 2016, available from <http://tass.ru/en/defense/870932>.

60. Article 2 stated: "The contracting parties reaffirm their commitment that they will not be the first to use nuclear weapons against each other nor target strategic nuclear missiles against each other." The text is reprinted in Ministry of Foreign Affairs of the People's Republic of China, "Treaty of Good-Neighborliness and Friendly Cooperation between the People's Republic of China and the Russian Federation," July 24, 2001, available from http://www.fmprc.gov.cn/mfa_eng/wjdt_665385/2649_665393/t15771.shtml.

61. *Ibid.*

62. Ibid.

63. Ibid.

64. Ibid.

65. Ibid.

66. "Deputy Chiefs of General Staffs of Russia, China discuss military cooperation in Beijing," TASS, May 24, 2016, available from <http://tass.ru/en/politics/877699>.

67. Roncevert Ganan Almond, "Summits, Roads, and Suspended Disbelief in Central Asia," *The Diplomat*, June 27, 2017, available from <http://thediplomat.com/2017/06/summits-roads-and-suspended-disbelief-in-central-asia/>.

68. Jonathan Fulton, "China is trying to pull Middle East countries into its version of NATO," *The Washington Post*, June 21, 2017, available from https://www.washingtonpost.com/news/monkey-cage/wp/2017/06/21/how-china-is-shifting-toward-the-middle-east/?utm_term=.9720c8e04e29.

69. TASS, "Russia-China military cooperation contributes to global stability—defense minister," *Russia Beyond*, September 2, 2015, available from http://in.rbth.com/news/2015/09/02/rusia-china-military-cooperation-contributes-to-global-stability-defense-minister_394051.

70. "China, Russia vow to boost military ties," *Xinhua*, June 3, 2016, available from http://www.china.org.cn/world/2016-06/03/content_38602942.htm; "Experts say Russia, China have solid foundation for developing ties," TASS, June 7, 2016 available from <http://tass.ru/en/politics/880568>.

71. "China, Russia To Hold Joint Military Drills In Baltic Sea After Trump Visit," *Radio Free Europe/Radio Liberty*, June 20, 2017, available from <https://www.rferl.org/a/chinese-naval-fleet-russia-hold-joint-military-exercises-baltic-sea-after-trump-visit-poland-germany/28565674.html>; Prashanth Parameswaran, "Military Drills Put Russia-China Ties in the Spotlight," *The Diplomat*, June 20, 2017, available from <http://thediplomat.com/2017/06/military-drills-put-russia-china-ties-in-the-spotlight/>.

72. DD Wu, "Xi-Putin Meet on SCO Summit Sidelines to Strengthen China-Russia Ties," *The Diplomat*, June 9, 2017, available from <http://thediplomat.com/2017/06/xi-putin-meet-on-sco-summit-sidelines-to-strengthen-china-russia-ties/>.

73. "Russia, China Plan Large-Scale Military 'Events' in 2017," *Sputnik*, June 7, 2017, available from <https://sputniknews.com/military/201706071054384704-china-russia-drills/>.

74. U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2017*, Washington, DC: Office of the Secretary of Defense, May 2017, p. 71.

75. "China makes advance payment for S-400 air defense system delivery," TASS, March 11, 2016, available from <http://tass.ru/en/defense/861706>; "Russia to start supplying Su-35 fighter jets to China after 2016 – Rostec CEO," TASS, March 11, 2016, available from <http://tass.ru/en/defense/861583>.

76. Michael Kofman, "An Uneasy Ménage à Trois," *Foreign Affairs*, December 4, 2014, available from <http://www.foreignaffairs.com/articles/142417/michael-kofman/an-uneasy-menage-a-trois>.

77. U.S. Department of Defense, *Annual Report to Congress*, p. 71.

78. "Russian defense minister suggests signing Russian-Chinese military cooperation roadmap," TASS, June 7, 2017, available from <http://tass.com/defense/950215>.

79. "China, Russia Voice Concern Over Deployment of Missile Defense System in ROK," *Xinhua*, April 29, 2016, available from http://news.xinhuanet.com/english/2016-04/29/c_135323748.htm; Leonid Bershidsky, "The Key to North Korea Is Russia," *Bloomberg*, May 18, 2017, available from <https://www.bloomberg.com/view/articles/2017-05-18/the-key-to-north-korea-is-russia>; Christine Kim, "South Korea to attend China's Silk Road summit amid diplomatic rift," *Reuters*, May 12, 2017, available from <http://www.reuters.com/article/us-china-silkroad-southkorea-idUSKBN1880Z9>; Christine Kim, "Russia's Putin Says Ready to Help Resolve North Korea Nuclear Issue: South Korea," *Reuters*, May 12, 2017, available from <http://www.reuters.com/article/>

us-southkorea-russia-idUSKBN1881N0; Samuel Ramani, "Russia's Love Affair with North Korea," *The Diplomat*, February 13, 2017, available from <https://thediplomat.com/2017/02/russias-love-affair-with-north-korea/>.

80. J. P., "Why doesn't China rein in North Korea," *The Economist* explains, blog of *The Economist*, April 5, 2017, available from <http://www.economist.com/blogs/economist-explains/2017/04/economist-explains-2?zid=306&ah=1b164dbd43b0cb27ba0d4c3b12a5e227>; Samuel Ramani, "What's Behind Sino-Russian Cooperation on North Korea?," *The Diplomat*, April 27, 2017, available from <http://thediplomat.com/2017/04/whats-behind-sino-russian-cooperation-on-north-korea/>; DD Wu, "Xi-Putin Meet on SCO Summit Sidelines to Strengthen China-Russia Ties," *The Diplomat*, June 9, 2017, available from <https://thediplomat.com/2017/02/russias-love-affair-with-north-korea/>.

81. "Russia, China launch first computer-enabled anti-missile exercises," TASS, May 26, 2016, available from <http://tass.ru/en/defense/878407>.

82. Andrei Lankov, "Changing North Korea: An Information Campaign Can Beat the Regime," *Foreign Affairs*, November/December 2009, available from <https://www.foreignaffairs.com/articles/asia/2009-11-01/changing-north-korea>.

83. Nikolai Litovkin, "Is Russia gearing up for war in its Far East amid Korea flare-up?" *Russia Beyond*, May 3, 2017, available from https://rbth.com/defence/2017/05/03/is-russia-gearing-up-for-war-in-its-far-east-amid-korea-flare-up_755334.

84. "Russian ambassador urges not to give up dialog with North Korea," TASS, June 8, 2016, available from <http://tass.ru/en/politics/880852>.

85. Ibid.

86. "Russia Calls for 'Positive Pressure' on Pyongyang in Nuclear Issue," *Sputnik*, June 5, 2016, available from <http://sputniknews.com/politics/20160605/1040803086/russia-north-korea-nuclear.html>.

87. "Russian Defense Ministry Warns Against Excessive Response to N Korea," *Sputnik*, June 5, 2016, available from <http://sputniknews.com/politics/20160605/1040801121/russia-north-korea-response.html>.

88. Mu Chunshan, "Why Doesn't Russia Support China in the South China Sea?" *The Diplomat*, June 21, 2014, available from <http://thediplomat.com/2014/06/why-doesnt-russia-support-china-in-the-south-china-sea/>.

89. "Russian Pacific Fleet Unit Visited Thailand," Embassy of the Russian Federation to the Kingdom of Thailand, March 5, 2015, available from <http://thailand.mid.ru/en/news/499-russian-pacific-fleet-unit-visited-thailand>, cited in Matthew Sussex, "Russia's Asian Rebalance," Sydney, Australia: Lowy Institute, December 7, 2015, available from <https://www.loyyinstitute.org/publications/russia-s-asian-rebalance>.

90. Alexander Korablinov, "Pacific Fleet Ships to Take Part in ASEAN anti-terror drills," *Russia Beyond*, March 31, 2016, available from https://rbth.com/international/2016/03/31/pacific-fleet-ships-to-take-part-in-asean-anti-terror-drills_580601.

91. "Russian defense minister speaks in favor of expanding Russia-ASEAN military ties," TASS, April 26, 2016, available from <http://www.tass.ru/en/politics/872431>.

92. Eiji Furukawa, "Moscow enhances defense ties with ASEAN at summit," *Nikkei*, May 21, 2016.

93. "Russia, ASEAN to Strengthen Security, Counterterrorism Cooperation-Putin," *Sputnik*, May 20, 2016, available from <http://sputniknews.com/politics/20160520/1039983380/russia-asean-putin.html>.

94. Gleb Fedorov, "After 20 years Russia makes first inroads into ASEAN," *Russia Beyond*, May 20, 2016, available from https://rbth.com/international/2016/05/20/after-20-years-russia-makes-first-inroads-into-asean_596093.

95. Anton Mardasov, "Vyetnam Priglasil Rossiyu Vernutsa v Kamran" ("Vietnam Invited Russia to Return to Cam Ranh"),

Svobodnaya Pressa, March 18, 2016, available from <http://sopressa.ru/war21/article/148840/>.

96. Carl Thayer, "Vietnam's Cam Ranh Bay Caught in US-Russia Crossfire," *The Diplomat*, March 13, 2015, available from <http://thediplomat.com/2015/03/vietnams-cam-ranh-bay-caught-in-us-russia-crossfire/>.

97. Sophia Yan, "Vietnam's defense spending is \$5 billion and rising fast," WCVB, updated May 23, 2016, archived page available from <https://web.archive.org/web/20160524124856/http://www.wcvb.com/money/vietnams-defense-spending-is-5-billion-and-rising-fast/39678792>; Sophia Yan, "Vietnam's Defense Spending is \$5 Billion and Rising Fast," CNN, May 23, 2016, available from <http://money.cnn.com/2016/05/23/news/vietnam-military-spending/index.html>.

98. Elizabeth Whitman, "Amid Chinese Military Aggression, Russia Delivers Submarine to Vietnam for Defense Over South China Sea Dispute," *International Business Times*, June 30, 2015, available from <http://www.ibtimes.com/amid-chinese-military-aggression-russia-delivers-submarine-vietnam-defense-over-south-1989783>.

99. "Vietnam's Restocking: Subs, Ships, Sukhois, and Now Perhaps F-16s and P-3s?" *Defense Industry Daily*, May 2, 2017, available from http://www.defenseindustrydaily.com/vietnams-russian-restocking-subs-ships-sukhois-and-more-05396/?utm_medium=textlink&utm_term=continuerereading.

100. Rajat Pandit, "After submarine training, India likely to train Vietnamese pilots to fly Sukhois," *Times of India*, October 28, 2014, available from <http://timesofindia.indiatimes.com/india/After-submarine-training-India-likely-to-train-Vietnamese-pilots-to-fly-Sukhois/articleshow/44954895.cms>.

101. "India Plans Exports of Supersonic Anti-Ship Missile," *The Maritime Executive*, May 27, 2016, available from <http://www.maritime-executive.com/article/india-expects-exports-of-supersonic-anti-ship-missile>.

102. Interfax News Agency and Russia Beyond, "Lifting of U.S. arms embargo on Vietnam to complicate situation for

Russia," *Russia Beyond*, May 23, 2016, available from http://rbth.com/news/2016/05/23/lifting-of-us-arms-embargo-on-vietnam-to-complicate-situation-for-russia_596423.

103. Ludmila Lutz-Auras, "Russia and Myanmar - Friends in Need?" *Journal of Current Southeast Asian Affairs*, Vol. 34, No. 2, 2015, available from <http://www.burmalibrary.org/docs21/Lutz-Auras-2015-Russia+Myanmar.pdf>.

104. Joshua Sampson, "Myanmar-Russia Military Co-operation to Increase," Dalkeith, Australia: Future Directions International, May 18, 2016 available from <http://www.futuredirections.org.au/publication/myanmar-russia-military-co-operation-increase/>.

105. "Russian ambassador talks Myanmar relations, security, and 'Asia's Century'," *Mizzima*, January 30, 2016, available from <http://mizzima.com/latest-news-politics-news-opinion-opinion/russian-ambassador>.

106. Peter Finn, "Russia, Indonesia Set \$1 Billion Arms Deal," *The Washington Post*, September 7, 2007, available from <http://www.washingtonpost.com/wp-dyn/content/article/2007/09/06/AR2007090601518.html>.

107. Elena Domashneva, "Indonesia-Russia Military Ties Going Strong," *Russia Beyond*, August 19, 2013.

108. Alexander Korablinov, "Russia, Indonesia sign defense cooperation agreement," *Russia Beyond*, May 20, 2016, available from http://rbth.com/news/2016/05/20/russia-indonesia-sign-defense-cooperation-agreement_594769.

109. Samhati Bhattacharjya, "Russia, Indonesia sign defence cooperation agreement," *International Business Times*, May 19, 2016, available from <http://www.ibtimes.sg/russia-indonesia-sign-defence-cooperation-agreement-1509>; "Russia, Indonesia sign agreement on defense cooperation, other documents," TASS, May 18, 2016, available from <http://tass.ru/en/politics/876575>.

110. Dave Majumdar, "This Asian Power Just Bought Russia's Lethal Su-35 (and It's Not China)," *The Buzz*, blog of *The National Interest*, February 12, 2016, available from <http://www.nationalinterest.org/blog/the-buzz/asian-power-just-bought-russias->

lethal-su-35-its-not-china-15196; Franz-Stefan Gady, "Indonesia and Russia to Ink Deal for 8 Su-35 Fighter Jets in May," *The Diplomat*, May 5, 2016, available from <http://thediplomat.com/2016/05/indonesia-and-russia-to-ink-deal-for-8-su-35-fighter-jets-in-may/>.

111. "Indonesia to Buy 8 Russian Su-35 Fighter Jets, Talks Near Completion," *Sputnik*, June 8, 2016, available from <http://sputniknews.com/business/20160608/1041015287/jets-russia-purchase-indonesia.html>; "Indonesia in talks to buy Sukhoi Su-35 fighter jets from Russia," DW, November 1, 2016, available from <http://www.dw.com/en/indonesia-in-talks-to-buy-sukhoi-su-35-fighter-jets-from-russia/a-36228031>; Franz-Stefan Gady, "Indonesia, Russia Have Finalized Contract for Delivery of Su-35 Fighter Jets," *The Diplomat*, June 8, 2017, available from <http://thediplomat.com/2017/06/indonesia-russia-have-finalized-contract-for-delivery-of-su-35-fighter-jets/>.

112. "Russia's positions on Asia-Pacific arms market," TASS, April 19, 2016, available from <http://tass.ru/en/defense/870932>.

113. Richard Ehrlich, "Russia Boosts Thailand's Military as U.S. Steps Aside after Coup," *The Washington Times*, February 21, 2016, available from <http://www.washingtontimes.com/news/2016/feb/21/russia-boosts-prayuth-chan-ochas-military-in-thai/?page=all>.

114. "Meeting with Prime Minister of Thailand Prayut Chan-o-cha," Moscow, Russia: The Kremlin, May 19, 2016, available from <http://en.kremlin.ru/events/president/news/51941>.

115. Gleb Fedorov, "After 20 years Russia makes first inroads into ASEAN," *Russia Behind the Headlines*, May 20, 2016, available from https://rbth.com/international/2016/05/20/after-20-years-russia-makes-first-inroads-into-asean_596093.

116. Prashanth Parameswaran, "A New Russia-Philippines Military Pact?" *The Diplomat*, January 11, 2017, available from <http://thediplomat.com/2017/01/a-new-russia-philippines-military-pact/>.

117. The Ministry of Foreign Affairs of the Russian Federation, "Sergey Lavrov's remarks and answers to media questions at a news conference on Russia's diplomacy performance in 2015," Moscow, Russia: The Ministry of Foreign Affairs of the Russian Federation, January 26, 2016, available from <http://www.mid.ru/en/>

press_service/minister_speeches/-/asset_publisher/7OvQR5KJWVmR/content/id/2032328.

118. Stephen Blank, "The Russo-Japanese Relationship in China's Shadow," *Eurasia Daily Monitor*, Vol. 13, Iss. 8, January 13, 2016, available from [http://www.jamestown.org/programs/edm/single/?tx_ttnews\[tt_news\]=44979&tx_ttnews\[backPid\]=827&no_cache=1#.VqB4cFIdIrg](http://www.jamestown.org/programs/edm/single/?tx_ttnews[tt_news]=44979&tx_ttnews[backPid]=827&no_cache=1#.VqB4cFIdIrg).

119. "Russian Fighter Jets 'Breach Japan Airspace,'" BBC News, February 7, 2013, available from <http://www.bbc.com/news/world-asia-21364559>.

120. Agence France-Presse, "Japan Protests after 'Russian' Plane Enters Airspace," Yahoo News, September 16, 2015, available from <https://www.yahoo.com/news/japan-scrambles-jets-intercept-russian-plane-222619504.html?ref=gs>.

121. Ankit Panda, "Why Did Russian Nuclear-Capable Bombers Circumnavigate Japan?" *The Diplomat*, January 27, 2016, available from <http://thediplomat.com/2016/01/why-did-russian-nuclear-capable-bombers-circumnavigate-japan/>.

122. Tim Kelly, "SDF jets scrambled 533 times in last 6 months to counter rising Russian incursions," *Japan Today*, October 16, 2014, available from <http://www.japantoday.com/category/national/view/sdf-jets-scrambled-533-times-in-last-6-months-to-counter-rising-russian-incursions>.

123. Marc Cancian, Michael Green, and Kathleen Hicks, dirs., *Asia-Pacific Rebalance 2025: Capabilities, Presence, and Partnerships*, Washington, DC: Center for Strategic & International Studies, January 2016, available from http://csis.org/files/publication/160119_Green_AsiaPacificRebalance2025_Web_0.pdf.

124. Justin McCurry, "Russia says it will build on Southern Kuril islands seized from Japan," *The Guardian*, June 9, 2015, available from <http://www.theguardian.com/world/2015/jun/09/russia-build-southern-kuril-islands-seized-moscow-tokyo-abe>.

125. Damien Sharkov, "Russia to Reinforce Military on Disputed Kuril Islands," *Newsweek*, May 27, 2016, available from <http://www.newsweek.com/>

rusia-announces-military-reinforcement-around-disputed-kuril-islands-464277.

126. "Abe meets Putin, agrees to 'new approach' in bid to resolve festering territorial dispute," *Japan Times*, May 7, 2016, available from <http://www.japantimes.co.jp/news/2016/05/07/national/politics-diplomacy/abe-meets-putin-advance-bilateral-talks-isle-row-peace-treaty/#.V0LeoeQcnwJ>; Henry Meyer and Stepan Kravchenko, "Abe Eases Putin's Isolation With Talks on Territorial Dispute," *Bloomberg*, May 5, 2016, available from <http://www.bloomberg.com/news/articles/2016-05-05/abe-breaks-putin-s-isolation-as-rare-g-7-leader-to-visit-russia>.

127. The Ministry of Foreign Affairs of the Russian Federation, "Foreign Minister Sergey Lavrov's interview to *Komsomolskaya Pravda* newspaper and radio," May 31, 2016, available from http://www.mid.ru/en/foreign_policy/news/-/asset_publisher/cKNonkJE02Bw/content/id/2298019.

128. "Putin Not Ruling Out US Troop Presence on Kurils if Islands Controlled by Japan," *Sputnik*, June 1, 2017, available from <https://sputniknews.com/politics/201706011054194800-putin-kurils-us-japan-military/>.

129. "Statement of Admiral Harry B. Harris, Jr., U.S. Navy Commander, U.S. Pacific Command, before the Senate Armed Services Committee on U.S. Pacific Command Posture," Washington, DC: U.S. Senate, February 23, 2016, available from http://www.armed-services.senate.gov/imo/media/doc/Harris_02-23-16.pdf.

130. Carl Thayer, "Vietnam's Cam Ranh Bay Caught in US-Russia Crossfire," *The Diplomat*, March 13, 2015, available from <http://thediplomat.com/2015/03/vietnams-cam-ranh-bay-caught-in-us-russia-crossfire/>.

131. Ryan Browne and Jim Sciutto, "Russian jets keep buzzing U.S. ships and planes. What can the U.S. do?" *CNN*, April 19, 2016, available from <http://www.cnn.com/2016/04/18/politics/russia-jets-buzz-u-s-ship-rules-of-engagement/>.

132. Krishnadev Calamur, "Russia to Treat U.S. Military Aircraft in Syria as 'Targets'," *The Atlantic*, June 19, 2017,

available from <https://www.theatlantic.com/news/archive/2017/06/russia-syria/530757/>.

133. Alexander Gabuev, "Russia's Prospective Niche on the Asian Security Market," *Carnegie.ru*, June 10, 2016, available from <http://carnegie.ru/commentary/63784>.

134. "Russia has no plans to set up naval base in Fiji—defense official," TASS, February 16, 2016, available from <http://tass.ru/en/defense/856963>.

135. Rakesh Krishnan Simha, "Power Play: Russia searches for bases in the Pacific," *Russia Beyond*, February 27, 2017, available from https://www.rbth.com/blogs/continental_drift/2017/02/27/power-play-russia-searches-for-bases-in-the-pacific_710046.

136. Vitaly Kozyrev, "Russia-Southeast Asia Relations: In China's Shadow?" *The Asian Forum*, April 19, 2016, available from <http://www.theasianforum.org/russia-southeast-asia-relations-in-chinas-shadow-2>.

137. Stephen Blank, "Myth and Reality in Russia's Asian Policy," *Eurasia Daily Monitor*, June 19, 2015, available from http://www.jamestown.org/programs/edm/single/?tx_ttnews%5Btt_news%5D=44058&cHash=19efa1c0600fbeece895728aabc3008a#.VuHhZZMrLGI.

138. Compare Paul Sonne, "Low Oil Prices Force Russian Defense Cuts, Top Military Business Boss Says," *The Wall Street Journal*, March 10, 2016, available from <http://www.wsj.com/articles/low-oil-prices-force-russian-defense-cuts-top-military-business-boss-says-1457656937>; with Andrey Illarionov, "No Money. There is Money!" *Echo Moskoy*, July 3, 2016, available from <http://echo.msk.ru/blog/aillar/1777124-echo/>.

**CHAPTER 21. RESPONDING TO RUSSIA'S
CHALLENGE TO EASTERN EUROPE:
THE IMPERATIVE TO ADOPT A POLICY OF
"HONEST DEFENSE"**

Thomas-Durell Young

PRÉCIS

An altogether common assumption among Western and many Central/Eastern officials is that the post-communist defense institutions, more or less, have been successful in adopting Western concepts of defense governance.¹ A careful review of the literature, balanced by the current writer's experience working with these organizations in the region, combine strongly to suggest that they remain largely bound by communist-legacy defense concepts which inhibit them from producing defense outcomes. As such, it is problematic whether these armed forces are capable of contributing effectively to the Alliance's common defense. This chapter argues that it is long past due that allies adopt a new policy of "Honest Defense," whereby officials in Central/Eastern Europe acknowledge their challenges and demand to be taken seriously regarding their defense reform challenges. Equally, Western officials need to become brutally honest in their expectations of communist-legacy defense institutions.

RESPONDING TO RUSSIA'S CHALLENGE TO EASTERN EUROPE: THE IMPERATIVE TO ADOPT A POLICY OF "HONEST DEFENSE"

Seldom, very seldom, does complete truth belong to any human disclosure; seldom can it happen that something is not a little disguised, or a little mistaken.²

Recent action by both the Senate and House of Representatives to reform the policy and management of the Department of Defense's (DoD) Security Cooperation programs could not be more welcome and timely.³ Language in the Fiscal Year 2017 National Defense Authorization Act envisages significant changes to how the DoD plans and executes "security cooperation" projects in future.⁴ When combined with the issuance of the first DoD "Instruction" that establishes policy regarding how defense institution building (DIB) is to be addressed in the provision of military and defense advice and assistance, U.S. policy would appear to address long-standing challenges to developing appropriate approaches to supporting the development of effective defense institutions among allies and partners.⁵ This attention to existing policy shortcomings is long overdue particularly as it relates to how the U.S. Government has underestimated the challenge of assisting in the creation or reform of defense institutions in Central and Eastern Europe. The high-level publicity of continuing challenges of Western efforts affect "capacity building" in Iraq and Afghanistan.⁶ There has long been a lack of appreciation among U.S. and other Western officials of how slowly and unevenly these defense institutions have been able to adopt Western defense governance concepts, but which now must be seen within the context of Russia's new adventurism.

This lack of attention is troubling on three levels. First, the decline in military capabilities in post-communist-legacy armed forces has occurred at a more accelerated rate than in Western armed forces. Modernization efforts in Western forces may be modest, but these nations still possess excellent lethal and sustainable capabilities. This is largely not the case with the armed forces of new North Atlantic Treaty Organization (NATO) members, heavily burdened with expiring communist-designed equipment and plagued with the continued use of legacy warfighting concepts (e.g., highly centralized command, understaffed tactical headquarters, “push” logistics, etc.). Arguably, unreformed, they can not contribute significantly in crisis or war, without requiring even greater Western resources that could be better used elsewhere.

Second, it must be of concern that this decline in military capabilities is due in large part to the inability of communist-legacy defense institutions to adopt fully Western defense governance concepts. This decline is occurring in close geographic proximity to a Russia that continues to act as a spoiler in European affairs in the best of times and is increasingly ignoring agreed-upon post-Cold War norms. One can ponder the wisdom of bringing these Cold War security “orphans” into the Western alliance, but by allowing their armed forces to atrophy, this has unwittingly created an “unfunded” security liability for NATO.⁷ Indeed, as the Ukrainian crisis has demonstrated, countries that are either not fully reformed or are legacy-based are at serious risk of Russian-inspired mischief.

Third, and finally, of importance to U.S. policy, most, if not all, nations in Central and Eastern Europe have been supportive of Western campaigns and, in particular, U.S. campaigns both within and outside of Europe and have supported them strongly with troop

deployments. That some are reforming too slowly and others are disarming by default should set alarm bells ringing. From all angles, therefore, the immediacy of gaining a better understanding of the state of legacy defense institutions is clear.

The fact that these defense institutions have faced challenges to reform at best, and atrophied in the worst cases, must be tempered by the fact that there has been no lack of effort to reform their defense institutions and armed forces by adopting Western democratic defense governance concepts. Certainly, within the context of modern history, these national efforts to reform, supported by Western allies, must be assessed as constituting one of the most ambitious, if not the most geographically widespread, effort to reform defense institutions. From the Baltic States which had to establish defense institutions *ab ovo*, to Poland⁸ and Romania⁹ with their long traditions of highly professionalized and, by regional standards, operational national defense institutions, great efforts have been made to create operationally effective, and (in time) financially efficient, institutions.

By any dispassionate review of objective data, the ability of post-communist defense institutions to transform themselves in accordance with Western norms of governance has been modest at best. Yet, efforts to assess the capability of any state to produce defense outcomes in an objective manner are complex and risk missing many highly important nuances, some of which could be construed as being subjective and which continue to perplex defense officials. As such, one cannot reliably measure progress on a single chart or graph, because this task does not lend itself to a simplistic checklist so beloved by bureaucrats. As presciently observed by Anton Bebler when assessing

the adoption of Western governance norms by Ministries of Defense, they “should not be assessed through a mechanical application of the arrangements which have gradually developed and spread in the West under Anglo-Saxon influence.”¹⁰ Rather, a review of befuddled concepts, unbalanced structures, and meager defense outcomes paints a picture of troubling widespread ineffectiveness. To wit, the principle of fixed territorial defense remains the *de facto*, if not *de jure*, predominant operational (and mental) concept for a number of key legacy defense institutions, arguably unintentionally undermining the principle of collective defense and the cornerstone of the North Atlantic Alliance (i.e., Article 5).

Examples of conceptual and definitional confusion in defense governance can be found throughout the region as to, for example, what constitutes viable operational formations and professional standards. The Serbian Army has a total number of 13,250 personnel, but is structured around 35 regular battalions. The Lithuanian Army of 3,200 soldiers is organized into 8 battalions. The Moldovan Army of 3,250 is organized into 5 brigades and 4 battalions. Conversely, the Belgian Army has 11,950 personnel organized into the equivalent of approximately 12 properly sized battalion-equivalents. The Bosnian defense budget in 2012 was approximately US\$228 million, but the armed forces are assessed by the International Institute for Strategic Studies as possessing little capability to mount combat operations. This dismal state of affairs exists despite a US\$100 million program to train and equip that was launched after the Dayton Peace Accords to enable the new federation to defend itself, underwritten by the United States (and carried out by a private firm employing approximately 200 retired U.S. military personnel).¹¹ Bulgarian Air Force pilots can

expect to fly only 30 to 40 hours per annum at best, and before the conflict with Russia, their Ukrainian counterparts were averaging around 40 hours per annum, yet NATO has stated that 180 hours per annum constitutes basic proficiency.¹² These representative disparate data paint a picture of not only underfunded and hollow units but also the inability of defense institutions to bring themselves to make “defense” fit within their existing budgets to produce measurable defense “outcomes.” As such, there is an incomplete appreciation, or even ignorance, in many of these countries of the need to achieve capability coherence in accordance with Western defense and military norms. Clearly, emotive and atavistic thinking continues to dominate defense policy and planning: *res ipsa loquitur*.

How military innovation is adopted in countries—a question addressed so elegantly by David Ralston in his book, *Importing the European Army*—is not just a significant, intellectual question.¹³ It also has profound contemporary practical meaning and wide policy implications, as witnessed by Congress’s recent hearings into, and legislation related to, this subject. As witnessed by the mixed record, at best, of the United States and its coalition partners in their combined efforts to rebuild the indigenous police, paramilitary, and armed forces in Iraq and Afghanistan, the creation of defense institutions and effective state-controlled forces, presents no small challenge. It is not difficult to train army infantry battalions; and equally, NATO armies are quite adept at executing this task. However, the United States and other NATO nations’ collective record of success in creating the contingent national-level defense governance in these two countries have been much more problematic.¹⁴ As the decline of military capabilities in new members has not been a

stated Alliance objective, there can be no other conclusion than the national efforts of new Alliance members and key partners and the advice and assistance provided by old NATO states have not been successful. Any dispassionate, objective cost-benefit analysis of Western efforts to encourage, finance, or cajole these defense institutions to reform would suggest that the West has received meager returns on its investments. This can only lead to the sensitive observation that current Western policies and the organizations which have been designated to reform defense governance need to be reassessed from their basic policy assumptions.

The less than convincing record of the U.S. Government in overseeing the creation or reform of civil defense institutions and armed forces in Europe, as well as in Iraq and Afghanistan, also speaks to the need for an examination of how the West in general approaches the issue of reforming, or even creating *ab ovo* defense institutions and armed forces.¹⁵ To be sure, every country, let alone each region, of the world has its own unique peculiarities in defense governance. However, it is rare that a defense institution has not been touched or influenced by a democratic or communist government. The point is that a strong understanding of the legacy characteristics of communist civil defense institutions and their armed forces continues to have relevance in terms of adjusting the West's approach to assisting its allies and partners in Central and Eastern Europe, and potentially many other defense institutions the world over which have comparable traits. Fortunately or not, there remains a data-rich series of communist-legacy civil defense institutions, which upon examination can provide useful insights to enable Western policy to readjust reform approaches to only those that are most relevant and effective.

This chapter presents a précis of a book written by the current writer that represents a modest attempt to provide a better understanding of the challenge presented to Western and Eastern officials when contemplating the reform of communist-legacy defense institutions.¹⁶ Clearly, both officials and analysts need such a resource to provide a deeper understanding of the problem and its causation.¹⁷ In so doing, that work posits five questions and advocates the adoption of a new approach to address the shortcomings identified in the work.

What is the State of Development of Central and Eastern European Defense Institutions?

There should be little doubt that Western and Eastern political, defense, and military officials have misjudged the severity of the challenge of achieving defense governance within the context of democratic governance values. Relying on a wealth of data and analysis that is available in the open-source literature, there can be little argument that overall most of these institutions are, to varying degrees, in serious need of effective and deep change. Space does not allow for an in-depth presentation of this data, but representative examples are presented throughout this chapter. That governmental institutions are challenged when attempting to bring about systemic change is hardly newsworthy. Yet, it should be acknowledged that it is troubling that there appears to be complacency, if not ignorance, of this state of affairs, both in old NATO nations and even in Eastern and Central European capitals. The events in Ukraine since the winter of 2014, have turned a bright light to the potential inadequacies of communist-legacy defense institutions, but it is not yet clear if this new level of awareness extends to an examination by Western governments

of their individual national and collective policies and approaches with NATO to support their reform. Moreover, it is equally unclear whether new NATO allied officials feel an immediacy to address their own national policies and priorities in a highly critical and probing effort. Yet, what the data demonstrates is that just as Western policy has been inadequate to the task of helping these young democracies reform their defense institutions to Western standards, officials in the region are equally unaware of how best to confront the challenge. The national policies of major allied nations simply must be reassessed to address this state of affairs. For without a much more concerted effort to press for reforms of concepts, assumptions, and logic, the legacy rot will continue to work its destructive pathologies.

What are the Impediments to Effective Reform?

The reform of legacy defense institutions has been impeded by a duality of misunderstanding the challenge. First, Eastern officials have been slow, if not at times unwilling, to acknowledge that their respective defense institutions continue to use communist-legacy concepts, assumptions, and logic. More often than not, this has been due in no small part to the fact that they have not known what the Western “right” solution should look like in their own national context, burdened (to varying degrees to be sure) with their legacy inheritance. Or, even when being brutally honest with the challenges that they face, the solutions often being proposed are structural and procedural Western “solutions” which simply do not address the deeper conceptual and logical divides that continue to plague their defense institutions.¹⁸ Second, Western officials,

civilian and military, simply have not understood the depth of the challenge of reforming institutions that have been subjected to the pernicious evils of communism. False linguistic cognates, antithetical concepts, and opaque assumptions have simply gone unrecognized and unaddressed as being causation for the inability of these countries to adopt liberal democratic defense governance norms. There were warnings of this problem published in the literature as early as 1996, but this sage counsel was either ignored, or simply dismissed.¹⁹ To be sure, the early willingness with which these countries participated in peacekeeping and, later, combat operations in Iraq and Afghanistan gave these defense institutions a political “pass” from Western nations and NATO. Perhaps the most problematic decision was to allow into the Alliance those with profoundly unreformed defense institutions. As Harald von Riekhoff observed, “new NATO members may undertake reforms without genuine conviction, in a rather superficial or purely cosmetic way, in order to satisfy NATO demands.”²⁰ In short, NATO and its member nations got the political incentives wrong from the beginning of Partnership for Peace (PfP) and later with the Membership Action Plan (MAP) process, and has failed to spend the time and resources necessary for ascertaining how best to determine how these institutions can adopt liberal democratic defense governance norms.

In light of the persistence of these communist-legacy concepts, assumptions, and logic, with minor exception, the key impediments to achieving reform are two-fold. First, there remains a lack of institutional recognition of the need for these defense institutions to embrace the concept of policy frameworks under which all activities within an institution must conform.

Instead of policy frameworks, on close examination what one widely finds is policy incoherence, which has led to institutional incoherence. Developing policy coherence is no small task and realistically might take generations to achieve. That said, what is troubling is that Western officials (and frankly many analysts) have failed to argue the need for the adoption of such a fundamentally important concept. Like so many other interactions with these defense institutions, many Western officials and analysts simply have assumed the existence of such concepts and even if there is a perception of a problem, it is seen as being a weakness of a functioning bureaucracy, vice evidence of the absence of enabling concepts. It is worth recalling that communism operated on the basic principle of absolute, unpredictable, anonymous, and unaccountable power by the party. The liberal democratic concept of "policy," in general terms should be seen as being founded on the principles of a leader's authority, responsibility, and accountability. None of these concepts was organic to these defense institutions when the Cold War ended, and one of the reasons why these organizations have yet to adopt them is that Western officials and analysts have not recognized that they remain elusive concepts to understand and implement. Thus, NATO and its members' praise for the development of model policy documents (e.g., *National Security Strategy*, and *National Military Strategy*) have actually been counterproductive since they have conveyed a false message that nicely written strategy documents are graded, as opposed to producing coherent capabilities.

Second, directly related to the first point is that Western officials and analysts have been remiss not to see that rarely have purported policy and planning documents ever been linked to money. To one brought

up in a legacy defense institution, money is simply not perceived as constituting the organization's most important management tool. Rather, money exists to pay, as a priority, salaries, benefits, and pensions. Any money leftover is then distributed in an opaque manner to support operations and modernization in the more advanced countries, or in the least reformed, to underwrite social programs, pensions, and bloated military health care systems. When challenged to explain such an alignment of spending priorities, the standard explanation one hears from officials is that there is insufficient money to enable the armed forces to produce capabilities, let alone modernize. Rarely do Eastern or Western officials question this logic. As a general, if unstated, rule, a defense budget needs to be balanced largely in more or less thirds: personnel, operations and maintenance, and acquisition and infrastructure. Once a defense budget breaks this balance, inevitably capabilities suffer. Even the seemingly advanced Slovenian Ministry of Defense is complacent in assuming that it will be able to modernize its armed forces by striving to reduce personnel costs to 50 percent, with 30 percent of the budget allocated to operations and maintenance and 20 percent to procurement and infrastructure.²¹ Note that the figure for personnel costs in 2013 stood at almost 70 percent.²² In the case of Bulgaria, the ratio of expenditures is even worse: 73 percent to personnel, 21 percent to operations and maintenance, and a mere 6 percent to modernization.²³ What almost defies explanation is that countries with huge imbalances as these have seen capabilities predictably degrade with time, but have gone unsanctioned politically by NATO's leading nations.

It is little wonder, therefore, that absent a policy framework (and the establishment of priorities linked

to producing outcomes) and an institutional recognition that money is the key managerial enabler of policy, weak defense institutions have responded by further centralizing decision making. One sees throughout the region systems that preclude defense officials from making informed decisions. Thus, in these defense institutions, little information systematically flows upwards, officials and officers are not expected to make recommendations, staff work is turgid and voluminous, and briefing senior decision makers with options is all but unknown. As a result, stasis reigns.

In the final analysis, the solution to these difficult challenges will require strong political courage on the part of governments and ministers, since almost by definition, addressing these long-standing imbalances implies reductions in personnel and shifts in where money is currently spent. One would think that without creating and empowering strong policy frameworks and re-conceptualizing money as the institution's key policy implementation tool, it would be difficult to see how the adoption of liberal democratic defense governance norms could take place. Long-standing members of the Alliance need to see solving this problem as constituting one of the most important challenges to assisting new NATO members to become greater providers of security vice solely being consumers. Equally, one would think that legacy defense institutions, alone or collectively, should see this as constituting a high priority and initiate projects with interdisciplinary inputs to ascertain how these challenges can be overcome.

What are Best and Less Effective Western Defense Reform Practices?

Western armed forces have long maintained training and educational institutions that foreign military personnel could attend as students, or from which expertise could be exported in the form of traveling training teams. Western officials have largely seen their existing professional military education (PME) and training organizations as constituting their primary toolbox when providing advice and assistance to reforming defense institutions. This is not to imply necessarily that there was a concerted effort to define the challenges of reform as solely being based on the employment of existing assistance institutions and programs. What is clear is that, by default, providing reform advice and assistance was determined to be within the expertise of Western armed forces. Missing from consideration has been the acknowledgment of the necessity of directing long-term and concerted efforts to help new allies and key PfP countries develop ministries of defense where they did not exist, or fundamentally overhaul those that existed, but in name only. What was evidently not appreciated is that the armed forces of almost all of these countries already existed, whereas a requisite civilian brain to provide democratic governance did not. Thus, where these programs and projects assisted these fledgling ministries of defense, oftentimes it was in the form of military-focused programs, using military personnel. This is not necessarily a condemnation given that Western ministries of defense frequently have military personnel posted to them. However, what has been missing was a persistent commitment by Western capitals to address specifically the needs of a new or

reforming ministry of defense and the inherent need to create innovative means quickly to educate defense civilian officials. The result of this approach has been either situations where legacy armed forces ignore and undermine civilian defense officials (e.g., in many countries where Chiefs of Defense [CHODs] answer to heads of state vice heads of government), or where the latter responds through centralization of decision making and via exercising negative control over the armed forces (e.g., in Slovenia as argued by Furlan).²⁴

It is with no small degree of modesty that this writer is reluctant to suggest that in the complex and contextualized environment presented by legacy defense institutions, as has been argued in the literature of the field of economic development, that there are “best practices.”²⁵ While admittedly based on excellent Western standards, the application of modern practices could have a deleterious effect, as they tend to lead to pre-designed and over-specific plans that preclude experimental joint problem-solving, thereby missing the achievement of a “best fit.”²⁶ The “positive deviance” school of thought makes a strong argument that knowledge alone is not enough to effect change. It is only practice that can change behavior and to get to this point, external experts offering advice and assistance need to re-think how they conceptualize effecting change.²⁷ Arguably, what field experience demonstrates is that changing the conceptual bases of an institution is not linear, nor is it predictable. The explanation for this heretical thought is that at the basis of reform of these institutions must be the recognition that institutional reform is primarily a domestic political challenge. As argued by Michael Oakeshott, reform cannot be addressed via technical means by itself, let alone using rational, predictive planning.

Here, Oakeshott's distinction between technical and practical knowledge is instructive. The former is the type of knowledge that is formulaic and can be put in a checklist.²⁸ The latter relates to what an expert actually knows: "the habits, skills, intuitions and traditions of the craft. Practical knowledge exists only in use; it can be imparted, but not taught."²⁹

It is within this political context that one can best understand the challenge of enabling a defense institution to change its fundamental concepts, particularly when prevailing practices are antithetical to the liberal democratic principles of defense governance. As a possible feeble nod to the idea of "best practices," the most important reform practice is arguably the need to understand the pernicious nature of communist-legacy concepts, assumptions, and logic. It is only with such an understanding where advice and assistance can be proffered with the objective of avoiding the creation of unwanted "conceptual spaghetti" (i.e., the layering of new concepts atop existing legacy concepts). Yet such "practical knowledge" is only going to be applied successfully within an environment with continuous and close political oversight and when necessary, pressure. At the same time, long-standing NATO nations' assistance efforts need to be informed by better education and training as to the importance of prevailing cultural norms, concepts, incentives, and motivations. A greater formal understanding of the communist-legacy defense institution, as well as those characteristics particular to a focus country—if properly managed and executed—could improve the delivery of advice and assistance program.

Conversely, there are existing assumptions, models, and programs that need to be reviewed with a very critical eye. As a new first principle, policy needs

to recognize that those programs and projects that seek to reform any defense institution are, by definition, political, and not merely technical. Clearly, new policy tools and oversight are needed to ensure that such programs and projects are designed, managed, and executed within a political context. Importantly, Western foreign ministries and the NATO international staff must re-think their previous efforts and reset the tone of their messages to the governments in Central and Eastern Europe regarding defense reform. Sharp and consistent messaging to political leadership, linked closely to advice and assistance projects, is long overdue.

Regarding specific practices, policy needs to review the practice of advocating the adoption of national models. This is not to be confused with concepts, but adopting whole-scale actual models has rarely worked, if for no other reason than because a recipient country, as noted by Ralston, essentially must change their prevailing cultural norms.³⁰ Neither does this practice pass the positive deviance test, nor Oakshott's distinction between technical and practical knowledge. Thus, as a policy matter, the practice of advocating the adoption of Western-style policy documents simply should be stopped. Western officials need to recognize that there are precious few examples (and this may be generous) of where the publication of such documents has had any noticeable effect where it matters most: rearranging priorities of a defense budget in a rational fashion that produces defense outcomes. From experience and appearance, policy documents and defense budgets in legacy defense institutions live in parallel universes that rarely, if ever, connect; and when they occasionally do, one might speculate it was more by coincidence than intention.

An enormous amount of Western effort and resources has gone into advocating for, and assisting in the development of, noncommissioned officer (NCO) corps in these armed forces. This is a logical extension of the decision to professionalize the force that has largely become the norm. The transition to a professional NCO corps makes excellent sense for a variety of reasons, not the least of which is lowering personnel costs. However, as with many models applied without their proper context, this has proven to be a slow process, the Baltic States' and Slovenia's armed forces being rare exceptions. Critically, these Western-sponsored advisory programs and projects have almost exclusively been initiated without changing the officer corps by shrinking and re-educating those remaining in the force to learn how to use professional NCOs. A common complaint heard from NCOs throughout the region is that the officer corps does not know how to use them at best, and at worst, sees them as a threat. In other words, the institution and its officer corps have not fully empowered them to become leaders. By not addressing the necessity of changing the officer corps at the political level preceding the creation of an NCO corps, these efforts have not had their envisaged effect. Thus, experience of exporting the concept of professional NCOs in the region is an excellent example of a good idea improperly implemented. This has been due in large part to Western officials not having conducted the necessary analysis to determine all of the systematic policy and cultural challenges associated with such a major change in any defense institution.

Finally, apropos of the issue of exporting the U.S. method of budgetary programming, a cursory reading of the literature more than suggests that the Planning, Programming, and Budgeting System (PPBS)

methodology is suspect at best.³¹ To be blunt, this writer has yet to see where it has worked. The persistent proclivity to centralize financial decision making has made the adoption of this methodology all but impossible, but even if there were decentralization, the method remains too complex and labor-intensive to argue against its utility: it enables defense officials to solve problems they will never have. Added evidence for this observation is that every defense institution in the region, to include advanced ones as identified in this work (i.e., Slovenia, Romania,³² and Poland³³), continue to struggle to produce financially viable defense plans connected to budgets. Surely, a less complicated and more transparent budgeting method, at least to start, is needed.

What has been the Performance of Western Policy and Management Practices?

The de facto, if not de jure, decision to define the reform of these defense institutions as a military problem has, by extension, defined the solution as the Western military's responsibility to fix. Contextualizing this question from a different perspective: How well has Western policy and its implementing organizational management practices performed in assisting these allies and partners to adopt liberal democratic defense and military norms? In light of the unsuccessful Western efforts to reform these defense institutions to replace legacy concepts, assumptions, and logic, Western nations must re-examine the basis of their current policies and approaches for providing advice and assistance to these nations. New policy direction must acknowledge that the previous policy pillars based on the ineffectual principle of the "3 Ts" (i.e., Technical

approach, using Training as the key assistance delivery vehicle, largely at the Tactical level) can remain, by and large, intact. However, this approach needs to be completely subsumed under, and made responsive to, a wider policy framework that acknowledges the ultimate reform of these institutions is inherently political, and that they will only begin to adopt liberal democratic concepts, assumptions, and logic through continuous political dialogue, discussion, and debate, all supported with expert advice at the national-level. Said advice must be based on principles of national cultural and organizational sociological awareness, and employ the principles of change management informed by each unique typology of the communist defense institution; it must also be refocused to each individual country's requirements and realities.

What has largely been missing in the West's approach to encouraging the adoption of liberal democratic defense and military norms, is an institutional appreciation of the need for all managers overseeing the design of assistance programs, as well as all instructors or experts, to be "educated" in understanding legacy concepts and the cultural conditions of the defense institutions they have the objective of changing. Critical is the need for a better appreciation of the continued conceptual and logic divides that exist, largely unaddressed, and an understanding of the current structure of incentives and disincentives in legacy systems. Moreover, as the challenges facing these defense institutions are deeply rooted and based on an organization's most basic institutional assumptions and conceptual make-up, there are going to be very few occasions when solutions will be simple one-time ("fire and forget") projects. Thinking needs to be transformed from episodic engagements to

long-term commitments with the appropriate content and intellectual appreciation of the conditions of these organizations.

Finally, Western officials need to reinforce the message that all activities and expenditures conducted by their defense institution must be focused on producing policy-determined outcomes. Heretofore, Western policy has defined "technical assistance" as comprising discrete inputs and "performance" as the sole execution of a series of activities or events. As such, managerial focus has been to look at assisting reform in terms of a series of "inputs." Regrettably, there has been far too little attention given to what all of these inputs are envisaged in the aggregate to produce. Oftentimes, even this is couched in amorphous managerial outcomes: improved efficiencies and effectiveness. But it should not be terribly difficult to begin to measure formally whether these efforts are having a positive macro-effect on producing clear military outcomes, particularly within the Alliance where such assessment tools have long existed, if indeed they need to be more frequently employed (e.g., tactical evaluations).³⁴ After all, if a defense reform effort is not conceived as enabling a defense force to deliver expected extreme violence in whichever defined environment, then frankly, what could be the point of it all? Moreover, this outcome should not be conflated with effecting interoperability (which, alas, one sees frequently claimed in the field), which is not the same result or output. Clear thinking of the envisaged outcome in military terms needs to be exercised at all phases of preplanning and engagement planning.

What are New Approaches to Adopting Western Governance?

From the perspective of legacy defense institutions, what must surely constitute the most challenging reform needed in legacy defense institutions is the all but common practice of centralizing decision making and budgets. At best, Western efforts to address this communist-legacy practice has been ineffectual, and efforts thus far have only reinforced centralizing proclivities (e.g., the PPBS). As long as decision making is centralized in ministries or CHODs and financial decision making is not delegated to officials responsible for producing outcomes, these defense institutions will continue to struggle to become producers of security. Arguably, at the heart of this pathology of centralization has been the unwillingness on the part of senior officials, civilian and in uniform, to enable and empower officials, particularly commanders, to produce defense outcomes. In consequence, the ability to produce predictable defense outcomes has been undermined by some misguided Western advice and assistance. To be fair, it is difficult to hold commanders and directors responsible for producing outcomes if they are not entrusted with the necessary policy framework (e.g., training policy that assigns responsibilities to commanders and not general staff) that enables them to make decisions (i.e., they lack the responsibility to manage financial and personnel inputs). Thus, centralization needs to be seen as a chronic and odious communist legacy that is preventing these defense institutions from adopting more deeply liberal forms of democratic defense governance. What is necessary, therefore, are strong policy frameworks to push downward operational and financial decision making to the

level of commanders and directors who are responsible for producing outcomes (e.g., chiefs of services, logistics, human resources management, medical services, etc.). To the charge that such acts will only fuel corruption, the response should be that this issue has long been addressed effectively in the West by ensuring that officials understand that one's authority is balanced by the principles of responsibility and accountability. To be very blunt, any concept, assumption, or strain of managerial logic that impedes a commander or director from contributing to the production of defense outcomes must be scrutinized and alternatives developed and tested. That ministries of defense and specifically PPBS directorates which continue the practice of centralizing financial decision making, will only continue the practice of enabling legacy defense institutions to remain unfocused on operations, bloated, and bleeding money for nondefense specific purposes.

From Western nations' perspective, what is unlikely to produce different effects from current Western assumptions and programs is what Marshall cites as a need to "standardize capability- and capacity-building systems."³⁵ If anything, Western nations have long offered standardized capability- and capacity-building programs and projects, and its meager record of "success" in the region speaks for itself. Indeed, this has been one of their key flaws. What the record of advice and assistance in this region has demonstrated is the need for Western governments to change policy and finances to provide managers of these efforts greater flexibility in enabling them, *inter alia*, to diagnose proper causation of the lack of ability to implement reform measures.

Why “Honest” Defense?

In the end, as argued in this work, fault for not having achieved deeper and faster reform of legacy defense institutions lies on both sides of the conceptual and logic divide. The West has looked at the problems of transition to liberal democratic defense governance too often as technical in nature, while their Eastern counterparts grossly underestimated the enormity of the task of reform they continue to face. As a modest first step, it is posited that both sides need a *tabula rasa* to review how they have conceptualized the challenge of reform for the past 25 years. This is needed in order to confront their common reality: the existence of too many dysfunctional defense institutions which are slowly, but assuredly, wasting away in a Europe with a Russia that could remain an unpredictable spoiler even long after Vladimir Putin leaves national office. The Russian invasion of Ukraine strongly suggests that future Russian mischief could well be encouraged by the continued presence of underdeveloped defense institutions plagued by policy, institutional, and capabilities incoherence.

Arguably, the most logical first step in this allied reassessment should be the immediate adoption of a new, common approach that is based on the principle of honesty. Former Secretary General Anders Fogh Rasmussen in winter 2011 called for the Alliance to adopt the Smart Defense initiative in order to collectivize capabilities in a time of austerity.³⁶ It is long past time for all member nations to adopt a similar initiative that recognizes the need for Honest Defense. Western nations need to abandon their policies and practices of accepting their Eastern counterparts’ professionalism without testing and questioning. Senior Western

officials need to take a harder line in interactions with their Eastern allied counterparts and start demanding hard and admittedly painful political decisions to start the process of adopting, in a mutually exclusive manner, liberal democratic defense and military norms to achieve better governance. Equally, Eastern allies, and indeed even PfP officials, should insist that Western donor nations and their defense institutions end their attitudes of false compliments and become brutally honest as to their failures and weaknesses. In essence, these officials need to demand that Western officials take them seriously and deal with them based on equality and honesty. To be blunt, it needs to be recognized that diplomacy based on falsehoods and facades is counterproductive and venomous for any alliance.

There is a precedent for this putative initiative. During the Cold War, the very public debate over “burden sharing” was being argued extensively among members of the Western Alliance.³⁷ The existential threat posed by the Warsaw Pact had the effect of focusing Western politicians’ minds on a daily basis on the fact that money not spent or wasted by an ally would have to be compensated by others. In this zero-sum financial environment, therefore, waste and inaction, both real and alleged, were called out in NATO councils and leaked with great regularity to the press. With the immediacy of the overt threat from the Warsaw Pact long vanished, the burden sharing debate among NATO countries has devolved almost to arguments and mutual recriminations about low defense expenditures as expressed in percentages of gross domestic product (GDP) dedicated to defense,³⁸ as opposed to a more constructive discussion about the viability of producing predictable defense outcomes.³⁹ In light of Russian

President Putin's more aggressive stance in former-Soviet space, it is long past time for the Alliance to return to its Cold War practice of focusing on the outcomes of allies' defense institutions. As acknowledged by the Alliance at the Wales Summit,⁴⁰ higher defense spending among nations does not necessarily translate into higher and improved defense outputs. If even the relatively reformed Polish defense institution has difficulty planning and acquiring new capabilities in a coherent fashion, additional funding is unlikely to produce greater defense outcomes to contribute to allied capabilities.⁴¹ Money wasted on bloated bureaucracies, excess infrastructure, forces that are barely deployable (or not at all), etc., not only do not deter but also can provide an illusion of defense capabilities when hardly any exist.

Thus, Eastern political and defense officials need to become more discerning and demanding regarding the quality and effectiveness of advice and assistance that purport to introduce Western democratic defense concepts. Deep diagnostics, and not endless assessments that go without action, are needed, with the understanding that existing concepts, assumptions, and logic must be reviewed in a brutally mutually exclusive manner. Western and Eastern defense and political officials need to operationalize the reality that institutional reform requires stronger political oversight and commitment. One would think that a cadre of better-informed Western policy officials should quickly be able to see the futility of simply providing *carte blanche* advice and assistance on a repetitive basis with little, or no, effect. Equally, officials managing these projects need to be better informed to be able to ascertain whether the advice or assistance methodologies are effective—or, better yet, whether actual causation has

been properly determined. As Putin's recent actions in Europe have demonstrated, the Euro-Atlantic community is likely never going to be isolated from a turbulent world. It is time to complete the integration of Eastern and Central European defense institutions into the Western fold, and work collectively to retire permanently the adjectival form of "legacy" in the context of these defense institutions. However, the West must not tarry; Russia's current inaction against the Alliance is unlikely to be indefinite.

ENDNOTES - CHAPTER 21

1. The views expressed in this chapter are those solely of the author and do not reflect the policy or views of the Naval Postgraduate School, Department of the Navy, or Department of Defense.

2. Jane Austen, *Emma*, Vol. III, London, UK: John Murray, December 1815 (dated 1816), ch. 13.

3. U.S. Senate, Committee on Armed Services, Subcommittee on Emerging Threats, "Department of Defense Security Cooperation and Assistance Programs and Authorities," Hearings, 114th Cong., Washington, DC, March 9, 2016; U.S. House of Representatives, Committee on Armed Services, "Examining DOD Security Cooperation: When It Works and When It Doesn't," Hearings, 114th Cong., Washington, DC, October 21, 2015.

4. See specifically, Fiscal Year 2017 National Defense Authorization Act, Sections 1204, 1205, 1241, 1242, 1249, 1250, 1251, and 1252.

5. DoD Directive 5205.82, "Defense Institution Building (DIB)," Washington, DC: U.S. Department of Defense, January 27, 2016.

6. For example, as opined by the editorial board of *The New York Times*, some US\$93 billion has been spent on reconstruction and security programs in Afghanistan despite failures in execution and management:

The Pentagon has proceeded with the purchase of aircraft costing \$771.8 million (including 30 Russian helicopters) despite the fact that just 7 of 47 Afghan pilots assigned to their air force unit are fully qualified to fly counterterrorism missions, which is the primary objective. The unit has a quarter of the 806 personnel needed to operate at full strength, and there is no plan for reaching that goal. It will take the air unit at least 10 years to perform critical maintenance and logistics tasks independently, in part because of the difficulty of finding recruits who are literate and don't have criminal records.

See "The Afghan Legacy," *The New York Times*, July 5, 2013.

7. Curt Gasteyger, "The Remaking of Eastern Europe's Security," *Survival*, Vol. 33, No. 2, March/April 1991, p. 111.

8. For a concise, but informative, historical analysis of the role of the Polish officer in society, see Andrew A. Michta, *The Soldier-Citizen: The Politics of the Polish Army after Communism*, New York: St. Martin's Press, 1997, pp. 23-45.

9. See Zolton D. Barany, *The Future of NATO Expansion: Four Case Studies*, Cambridge, United Kingdom (UK): Cambridge University Press, 2003, pp. 167-168.

10. Anton A. Bebler, "The Regionwide Perspective on Post-Communist Civil-Military Relations," in Anton A. Bebler, ed., *Civil-Military Relations in Post-Communist States: Central and Eastern Europe in Transition*, Westport, CT: Praeger, 1997, p. 76.

11. See Kathleen J. McInnis and Nathan J. Lucas, "What is 'Building Partner Capacity?' Issues for Congress," R44313, Washington, DC: Congressional Research Service, December 18, 2015, pp. 38-39.

12. The International Institute for Strategic Studies, *The Military Balance 2015*, London, UK: Routledge, 2015.

13. David B. Ralston, *Importing the European Army: The Introduction of European Military Techniques and Institutions into the Extra-European World, 1600-1914*, Chicago, IL: University of Chicago Press, 1990.

14. "The 2014 defeat of the Iraqi security forces (ISF) by ISIS is the most recent reminder of the limits of U.S. security assistance when the broader political and sectarian challenges undermine the capabilities and will of partner security forces." Dafna H. Rand and Stephen Tankel, "Security Cooperation and Assistance: Rethinking the Return on Investment," Washington, DC: Center for a New American Security, August 2015, p. 9.

15. Rand and Tankel argue that short-term security assistance objectives have overtaken U.S. Government efforts to promote accountable governance and the rule of law. Rand and Tankel, pp. 9-10.

16. *Anatomy of European Post-Communist Defense Institutions: Mirage of Modernity*, London, UK: Bloomsbury Academic, 2017.

17. Dicke, Hendrickson, and Kutz argue that the lack of implementation of the 2010 *Bulgarian Defense White Paper*, Bulgaria, Ministry of Defense, Sofia, Bulgaria, 2010, was due to corruption. While not ignoring corruption, it is not clear whether it occurred to these knowledgeable analysts that the lack of implementation of this document could be simply due to bureaucratic inertia and incompetence. See Rachel A. Dicke, Ryan C. Hendrickson, and Steven Kutz, "NATO's Mafia Ally: The Strategic Consequences of Bulgarian Corruption," *Comparative Strategy*, Vol. 33, No. 3, 2014, pp. 287-298.

18. See, for example, the excellent report that addresses the Slovak defense institution's problems with such solutions as increasing defense expenditures, binding procurement plan, longer-term defense plans, etc. Jaroslav Nad', Marian Majer, and Milan Šuplata, *75 Solutions for Slovakia's Defence*, Bratislava, Slovakia: Central European Policy Institute, circa 2015, p. 4. I address this issue at length in Thomas-Durell Young, "Impediments to Reform in European Post-Communist Defense Institutions: Addressing the Conceptual Divide," *Problems of Post-Communism*, Vol. 65, No. 3, 2018, published online October 20, 2016, available from <http://www.tandfonline.com/doi/full/10.1080/10758216.2016.1220256>.

19. Reka Szemerkenyi, "Central European Civil-Military Reforms at Risk," *Adelphi Paper 306*, London, UK: The International Institute for Strategic Studies, 1996.

20. Harald von Riekhoff, "Introduction," in Natalie Mychajlyszyn and Harald von Riekhoff, eds., *The Evolution of Civil-Military Relations in East-Central Europe and the Former Soviet Union*, Westport, CT: Praeger, 2004, p. 13.

21. Slovenia, Ministry of Defense, "Resolution on General Long-Term Development and Equipping Programme of the Slovenian Armed Forces up to 2025," *Official Gazette of the Republic of Slovenia*, No. 99/2010, Ljubljana, Slovenia, December 7, 2010, p. 28.

22. Slovenia, Ministry of Defense, *Annual Report of the Ministry of Defence for 2013*, No. 0100-127/2013-34, Ljubljana, Slovenia, May 27, 2014, p. 83.

23. Bulgaria, Council of Ministers, "Programme for the Development of the Defence Capabilities of the Bulgarian Armed Forces 2020," Sofia, Bulgaria, approved September 30, 2015, p. 32.

24. Branimir Furlan, "Civilian Control and Military Effectiveness: Slovenia," *Armed Forces and Society*, Vol. 39, No. 3, 2012, pp. 434-449.

25. As argued persuasively by Diane de Gramont, "Beyond Magic Bullets in Governance Reform," Washington, DC: Carnegie Endowment for International Peace, 2014, pp. 14-16.

26. Koenraad Van Brabant, "Value-for-Money? The Overall Record of Technical Assistance for Institutional and Governance Reform," International Peacebuilding Advisory Team, *Effective Advising in Complex and Fragile Situations*, Working Paper 1, Geneva, Switzerland: International Peacebuilding Advisory Team, n.d., pp. 11-12.

27. As argued by change management experts of the school of positive deviance who are skeptical of employing "best practices" to solve institutional and social problems. See Richard Pascale, Jerry Sternin, and Monique Sternin, *The Power of Positive Deviance: How Unlikely Innovators Solve the World's Toughest Problems*, Cambridge, MA: Harvard Business Press, 2010.

28. An important point that argues against the possible utility of formulaic assessments that only look at structures and the

presence of procedures. For example, Hari Bucur-Marcu, *Defense Institution Building Self-Assessment Kit*, The Geneva Centre for the Democratic Control of Armed Forces, 2010.

29. Michael Oakeshott, *Rationalization in Politics and Other Essays*, Indianapolis, IN: Liberty Fund, 1991, p. 15.

30. Ralston, p. 173:

The reformers were to learn, often to their dismay, that the introduction of European forms and methods into their military establishments would sooner or later oblige their societies to undergo internal adjustments which were by no means trivial.

31. What is mind-numbingly surprising is that NATO nations' officials, and even the international staff, have blindly encouraged the adoption of this methodology by reforming countries absent an understanding or even knowledge of how harshly the literature has treated the method. One of the most influential writers on strategic planning, Mintzberg, writes that the development and institution of Planning, Programming, and Budgeting System (PPBS) constitutes one of the greatest efforts and failures of all time in the area of public finance. Henry Mintzberg, *The Rise and Fall of Strategic Planning: Reconceiving Roles for Planning, Plans, Planners*, New York: Free Press, 1994, p. 19. A leading expert on public finance at the time of the development of PPBS for the U.S. Department of Defense, Aaron Wildavsky writes, "PPBS has failed everywhere and at all times." See Aaron Wildavsky, *The Politics of the Budgetary Process*, New York: Little, Brown, 1984, p. 121. He continues:

Nowhere has PPBS . . . been established . . . [or] influenced government decisions, according to its own principles. The program structures do not make sense to anyone. They are not, in fact, used to make decisions of any importance.

32. Despite having embraced and implemented PPBS in 2002, in 2010 a Romanian defense official publicly acknowledged that the Ministry of Defense still could not fully utilize it effectively in defense planning due to its intensive personnel requirements. See Oana-Raluca Manole, "PPBES Process Overview: Considerations Regarding its Implementation and Use," in Maria Constantinescu,

ed., *Planning, Programming, Budgeting, Evaluation System: Benefits and Challenges*, Workshop of the Planning Programming Budgeting System Course, Bucharest, Romania: National Defense University, Carol I Publishing House, 2010, p. 36.

33. Polish planning methods again failed, as in the case of the “Army 2006” modernization plan and the 2012 10-year technical modernization program. By the end of 2015, it was reported that these plans had not met the acquisition objectives because the plans had not been properly costed. See Tomasz Paszewski, “Can Poland Defend Itself?” *Survival*, Vol. 58, No. 2, April-May 2016, pp. 126-127.

34. Compare to Rand and Tankel, who argue that the development of measures of effectiveness is challenging. Perhaps, but not in the case of NATO nations’ armed forces; there the issue is simply one of intensifying the practice and raising significant shortcomings to the political level.

35. Jeffrey Marshall, *Skin in the Game: Partnership in Establishing and Maintaining Global Security and Stability*, Washington, DC: National Defense University Press, 2011, pp. 71-72.

36. “NATO Secretary General calls for ‘Smart Defence’ at Munich Conference,” February 4, 2011, available from http://www.nato.int/cps/en/natohq/news_70327.htm.

37. The literature on burden sharing during the Cold War is anything short of being vast. A good treatment can be found in Simon Duke, *The Burdensharing Debate*, New York: Saint Martin’s Press, 1993.

38. See then-Secretary of Defense Robert Gates’s valedictory strong public rebuke to NATO allies for their meagre defense budgets. Thom Shanker, “Defense Secretary Warns NATO of ‘Dim’ Future,” *The New York Times*, June 10, 2011.

39. Hillison develops a strong argument that new NATO members have not been generally guilty of taking a free ride. However he measures, inter alia, gross domestic product (GDP) percentages allocated to defense and their deployments in support of NATO and U.S. campaigns. He does not consider the net “burden” that accrues to the collective when defense institutions

go unreformed. Joel R. Hillison, *Stepping Up: Burdensharing by NATO's Newest Members*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, 2014.

40. "Our overall security and defence depend both on how much we spend and how we spend it." Wales Summit Declaration issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Wales, UK, Press Release, Section 14, 2014 120, September 5, 2014.

41. "Polish Military Modernization: The Road Ahead," *Intelligence Brief No. 2*, Warsaw, Poland: Center for European Policy Analysis, September 2015, p. 8.

CHAPTER 22. NATO AND A RESURGENT RUSSIA: CAN THE ALLIANCE ADAPT?

Andrew A. Michta

Russian President Vladimir Putin's decision to move into the Republic of Crimea and to launch a war in Donbass, Ukraine, is a landmark in the North Atlantic Treaty Organization's (NATO) history.¹ It marks the final break between the post-Cold War era's relatively benign security environment in Europe and the current phase of state-on-state competition, now quickly gathering speed over the continent's once quiescent horizon. Although Putin's decision to seize Crimea is the signature event of this transformation, the shifting security equation along NATO's northeastern flank can be traced back to two fateful developments in 2008. First, NATO's decision at the Bucharest, Romania, summit not to offer a Membership Action Plan (MAP) to Georgia and Ukraine, and then the Russian-Georgian war that followed, terminated the West-East momentum of enlarging Western democratic, market, and security institutions. The immediate sign of a fundamental shift was Putin's seizure of Crimea in 2014, which came on the heels of the European Union's (EU's) feeble attempts to bring Ukraine into its Eastern Partnership. The incorporation of the Crimean Peninsula into the Russian Federation ended an increasingly halting process of seeking accommodation with Putin's Russia, already failing around the time of the second Chechnya war (i.e., 2000). What began in 2008 as Russian military backpressure building up against the ill-defined NATO frontier was transformed in 2014 into a new fault line, with Russian initial military momentum in Donbass altering the geostrategic equation along the Alliance's northeastern flank.

Today Putin's Russia retains escalation dominance in the war against Ukraine and, poised along NATO's frontier, presents the allies with their greatest territorial defense challenge in the last quarter-century. Even more importantly, it has forced upon the Alliance the question of how to adapt to the new security environment and what concrete steps to take to begin redressing the critical military imbalance between Russia and NATO along the Alliance's northeastern flank. This dual task has confronted the Alliance at a time when Europe is reeling from a triple crisis, including the deepening institutional malaise of the EU; the Eurozone crisis; and, most importantly, the waves of migration from the Middle East and North Africa. At the same time, beginning with the first term of the Barack Obama administration, the United States has been reorienting its military power and political focus to the Western Pacific, making this so-called pivot to Asia also a *de facto* pivot away from Europe.

In hindsight, Putin's seizure of Crimea and the subsequent war in Eastern Ukraine seems like a predictable series of events, riding on changing domestic politics in Russia, progressive American disengagement from Europe during the two terms of the Obama administration, and fissures emerging within Europe on how to shape relations with Moscow. As NATO and the EU enlarged after the Cold War, the fundamentals of geopolitics were increasingly replaced in Europe's capitals with the conviction that the systemic transformation of former Eastern Europe, in combination with the region's anchoring in the transatlantic security system, would eventually bring about an enduring closure to the historically driven security dilemmas rooted in the region's politics. In the post-Cold War Europe, the former eastern periphery of the

erstwhile Soviet empire was to become a new “Central Europe”—recalling the idea of *Mitteleuropa*—no longer a contested space in Europe’s geopolitics. Starting in 2008, that dream faded quickly, and has been all but replaced by the realization that Europe must come to terms with the enduring reality of a revanchist Russia.

The 2014 Russian war in Ukraine was about something larger than Putin’s ill-begotten dream of “*Novorossiia*,” for it brought about the closing of NATO’s frontier, which would reverberate just as powerfully within Europe itself as across the Atlantic. It overturned Berlin’s naive assumptions that a new relationship with Russia could be crafted along a dual track of assisting Russia’s “modernization” through economic engagement and investment on the one hand, while on the other, leveraging the European Neighborhood Policy through a Polish-Swedish-led Eastern Partnership initiative that would draw the new Eastern Europe, especially Ukraine, closer to the West. As late as the early 2000s, there were high expectations in Brussels, Belgium; Berlin, Germany; and Warsaw, Poland, that engagement with the East would deliver lasting change and in the process reshape the internal dynamic in Europe itself beyond the Cold War-era West-East division. With the Russian takeover of Crimea and the escalation of the war in Donbass, the idea that Europe’s geopolitical dilemmas could be overcome and that Eurasia’s historically contested “lands-in-between” (*Zwischeneuropa*) could be transformed into a new Central Europe anchored in the larger European and transatlantic security architecture was thrown into question. Since the incorporation of Crimea into the Russian Federation, the post-Cold War optimism in Europe has disappeared, but it has yet to be replaced with a new consensus on how to shape

Europe's—and by extension NATO's—relation with Putin's Russia.

The question today is whether NATO will rise to the occasion to deter Russia from attacking, and, if need be to defend, its northeastern flank? In order to address this question, this chapter will briefly outline the key drivers of the changing security environment in Europe and identify the principal resource constraints confronting the Alliance and the principal fault lines on policy as the Alliance prepares for the Warsaw summit. It will also assess NATO's current ability to put in place a credible deterrent against Russia and, in a crisis, to defend the frontier.

GEOPOLITICS REDUX AND RESOURCE CONSTRAINTS

This assessment stipulates that the shift in the security environment and the rise in Russia's geostrategic assertiveness in Eastern Europe constitute an enduring change and are part of a larger policy design whereby Putin sees his role as restoring Moscow to its erstwhile great power position in the region. Putin has claimed, yet again, a sphere of privileged interest along Russia's western periphery that excludes, or at the very least has sought to attenuate, the U.S. ability to operate there. Most importantly, Russia wants to revise the post-Cold War settlement in Europe, returning to the geopolitics of yore. Putin's policy rests on the premise now regnant in Moscow that the United States, having been drawn into the Western Pacific and Middle East North Africa (MENA), will lack the political will to re-engage with Europe, while the latter continues to spiral into an internal crisis fed by economic and migration pressures. The scenarios for Russian aggression

against Europe that are under consideration range from “hybrid” to an all-out cross-border invasion by Russia, with the probability level ranging from higher to lower as one moves from the hybrid to the conventional end of the spectrum. Several ancillary scenarios under consideration include possible Article 4 situations, including civil unrest, border infractions—for instance, a provocation by Russia involving a marginal border shift—or subterfuge aimed at destabilizing one or more of the Baltic States. Russian strategy following the seizure of Crimea has changed the security equation along NATO’s north-south frontier, but nowhere is the level of vulnerability to Putin’s geopolitical game felt as acutely as it is along the Baltic-Central European flank.

As NATO prepared to meet for the Warsaw summit in 2016, its record of adapting to the new security environment over the previous 2 years was mixed at best. Since the Wales summit in 2014, only four of NATO’s European allies have met the agreed-upon spending target of 2 percent of gross domestic product (GDP) on defense. While the United States has allocated an additional \$3.4 billion in Overseas Contingency Operations (OCO) funding for U.S. Army Europe, the Europeans’ commitments have gone largely unmet. At the same time, the Pentagon has committed to deploying an armored brigade back to Europe to bolster NATO’s deterrent capabilities.² As far as the European allies are concerned, the 2 years between the summits have not seen the kind of transformation and development that the Alliance promised, both in terms of resources and actual organizational adjustment, especially with the Very High Readiness Joint Task Force (VJTF) remaining largely a political statement.³ This has been particularly apparent in the lack of consensus on whether the Alliance should move in the direction of setting up

permanent bases along the northeastern flank, especially in the Baltic States and Poland. Alternatively, should it move instead in the direction of a “persistent rotational presence”—the formula that was ultimately adopted, with four multi-national battalions to be deployed on a rotational basis?⁴ However, the actual numbers of the multinational units will fall short of what the frontier allies expected, with each of the battle groups consisting of up to 800 troops—far below anything that could be construed as a credible deterrent to Russia.⁵

An issue yet to be resolved within the internal NATO debate, notwithstanding what has been seemingly agreed to in the run up to the Warsaw summit, concerns the nature of basing along the northeastern frontier. The legacy of U.S.-European drift, especially in light of the first term of the Obama administration’s “pivot to Asia” and Washington’s policy of “leading from behind,” has left the distinct impression that the United States considers Europe to be largely secure and not in need of renewed military engagement. The progressive reduction of U.S. deployments in Europe that brought U.S. Army personnel to approximately 30 thousand in 2015 has created both a deficit of usable capability to build a credible deterrent, as well as the distinct impression that America is no longer engaged in the shaping of Europe’s security environment to the degree it once was. Strangely enough, the collapse of European defense budgets post-Cold War reinforced the perception in Washington that concerns about territorial security in Europe were no longer relevant, as Russia’s military power was believed to have decomposed to the point at which, outside of its residual nuclear capability, Moscow was unable to pose a threat to U.S. allies in Europe—hence, the double shock felt

by Europe and the United States when Russia seized Crimea and waged war in Ukraine.

There is a clear disconnect between where the Russian military is today and where NATO allies stand when it comes to defense spending. Russia is currently halfway through a 10-year US\$700 billion military modernization program, which has brought about considerable improvement in Russian weapons platforms, readiness, and mobilization speed. In 2015, Russia conducted snap exercises that included some 300,000 personnel, 1,100 aircraft, and 280 ships. Meanwhile, the scope of the European NATO allies' defense spending collapse is perhaps best illustrated, as then-Secretary of Defense (SECDEF) Ashton Carter pointed out during a visit to Germany in June 2015, by the fact that the United States provides 70 percent of all of NATO's defense spending.⁶ The disparity between U.S. and European defense spending and the failure to fulfill the Wales commitments mean that only four countries—Estonia, Greece, Poland, and the United Kingdom—met the 2 percent of GDP defense spending targets in 2015. The inadequacy of regional defense commitments has been further amplified by a decline in the spending levels of European non-NATO members along the frontier. For instance, in 2015 the combined defense spending levels of the three Baltic States (US\$1.1 billion), Sweden (US\$5.5 billion), and Finland (US\$2.9 billion) were roughly the equivalent of the US\$10 billion defense budget of Poland.⁷ The paucity of resources committed to defense demonstrates the overall dilemma confronting NATO as it struggles to deliver a credible deterrent to resurgent Russian military power in the region.

THE SECURITY EQUATION ALONG THE FRONTIER

The fundamental problem of building a credible deterrent regime in the Baltic and Central European region rests on the overarching question of whether, in light of the lack of resources allocated to defense as well as geographic constraints, the Baltics can be defended in an all-out confrontation with Russia. The problem has been war gamed at RAND, which concluded that, considering Russian air superiority in the region, its anti-access/area denial (A2/AD) capabilities deployed in the Kaliningrad District and the overall numerical superiority of the forces deployed in the western part of the Russian Federation, the Baltics would be overrun in short order. There may be a possible follow-on movement of Russian forces through the so-called Suwalki Gap deep into Poland.⁸ In a series of war games conducted between the summer of 2014 and the spring of 2015, RAND's Arroyo Center gamed the outcome of a putative Russian invasion of the Baltic States. The results showed that, as presently postured, NATO would not be able to defend successfully the territory of its most exposed members unless it deployed seven additional brigades, including three heavy armored brigades, supported by airpower, land-based fires, and other enablers to be available from Day 1 of the war. Without such deployments, Russian forces would reach the capitals of Tallinn, Estonia, and Riga, Latvia, in 60 hours or less, depending on the scenario. According to the RAND study, such an outcome would leave the Alliance in an untenable situation, with options ranging from surrender to a rapid escalation and liberation scenario as the only feasible outcomes. Even then, RAND concluded that implementing its recommendations would not fundamentally change NATO's

calculus for a sustained defense, although it would complicate Moscow's planning and create uncertainty about the outcome, thereby enhancing deterrence.

A similar problem confronts NATO's VJTF, the 5000-strong force agreed upon during the NATO Wales summit, alongside the U.S.-led European Reassurance Initiative (ERI) and NATO's Readiness Action Plan (RAP). At the time, the VJTF concept was touted as a means of responding rapidly in the event of a crisis, focusing primarily on hybrid scenarios. NATO has never addressed sufficiently that, considering the fundamental deficits in air and missile defense (AMD) in the region and especially the deployment of the Iskander missile in Kaliningrad, the VJTF would be highly vulnerable from the very beginning of deployment, making it all but impossible to deploy where needed. The deficits in NATO's logistics and planning—including such basic issues as the ability to facilitate movement across national boundaries, which admittedly are to be addressed in Warsaw—are likely to cripple the VJTF even before it could deploy. Even if the VJTF manages to move forward, it would most likely be overrun by the Russians well before it was ready to fight anywhere east of the German border. The compromise solution to addressing the glaring inadequacies of the VJTF concept has been to place multinational units forward to be approved in Warsaw, including four battalions to be rotated through the region as de facto tripwires in the event of an attack. The political symbolism of this decision aside, the deployment will do little to change the fundamentals of the power equation in the theater. Most importantly, it fails to address fully the basic question of what happens if and when the "wire" is tripped.

The June 2016 NATO defense ministers meeting in Brussels took place at a time when the rhetoric on and reality of the future of the Alliance continues to generate disagreement among Europe's capitals, notwithstanding the resounding declaration of allied unity delivered at its end. For quite some time, U.S. and NATO leaders have been issuing condemnations of Russia's actions in Ukraine and warning Moscow not to try to intimidate the Alliance members along the northeastern flank. Indeed, on their face the oft-made statements about the sanctity of NATO's borders should reassure the Baltic States and the Central Europeans. For instance, speaking at the Allianz Forum in Berlin on June 22, 2015, then-SECDEF Carter noted, "as Russia aggressively modernizes its military capabilities, it also actively seeks to undermine NATO." Carter underscored that, while America does not seek a cold or hot war with Russia, "we will defend our allies, the rules-based international order . . . and stand up to Russia's actions and their attempts to reestablish a Soviet-era sphere of influence."⁹ The tonality was similar, but the thrust markedly different when 3 weeks prior, NATO's Secretary General Jens Stoltenberg asserted that "Russia poses no immediate threat to NATO countries and the military Alliance still hopes bilateral relations will improve." Speaking on a visit to Norway, Stoltenberg stated, "What we see is more unpredictability, more insecurity, more unrest . . . (But) I believe we don't see any immediate threat against any NATO country from the east."¹⁰ Not to be outdone, German defense minister Ursula von der Leyen seemed less circumspect than usual when she declared after the recent NATO exercises in Poland, "It is essential to make it clear to our neighbors that we stand up for their protection."¹¹ What was to represent

a uniform tenor of professed solidarity across Europe resulted in an unintentional display of ambivalence. Yet all such statements must be weighed against continued displays of urgency and determination emanating from states along the northeastern flank, such as Poland and the Baltics, who have argued repeatedly for reassurance to give way to a permanent NATO presence on their territory as the most reliable deterrent against any attempts by Putin to jump NATO's red line. In sum, the rhetoric of reassurance to the frontier states has not papered over the fundamental differences between "old" and "new" Europe on the question of permanent NATO bases along the frontier. The insistence by Poland that all NATO members have the "same security status," articulated by the country's then-foreign minister Witold Waszczykowski was privately greeted by some in Europe as counterproductive and borderline inflammatory.¹²

The rhetoric of allied solidarity has been buttressed somewhat by a slew of exercises, like the recent NATO exercise in Poland of the so-called Spearhead Force rapid reaction unit of some 5,000 troops drawn from several member states, and especially the Anakonda 16 exercise concluded in June 2016. Moreover, the United States has planned to preposition heavy equipment, including armor, along NATO's northeastern flank to support its reinforcements should they need to be deployed to the region in an emergency. Thus far, Anakonda 16 has marked the largest shift in focus when it comes to military exercises along NATO's northeastern frontier. The exercises comprised 30,000 troops from across the Alliance, with the intent of sending a political message to Russia of allied solidarity and determination to respond to an attack. The participating forces from the United States included the 173d Airborne Brigade, National Guard Soldiers from

Ohio and Missouri, and others; non-NATO partner countries from the region, including Sweden and Finland, also took part.¹³ The various scenarios practiced during Anakonda 16 aside, the principal thrust of this most recent exercise in Poland was to send a political message to Moscow that although NATO may be short on usable military capabilities, it nonetheless has the political will to act if necessary.

All such NATO actions need to be taken in context. The first and obvious discrepancy between what NATO and Russia have been doing lies in the scope of their respective efforts on the ground. Executed in the run up to the NATO summit in Warsaw in July 2016, Anakonda 16 is still an exception as, following the Russian seizure of Crimea, most of the U.S. contingents deployed for exercises in Poland or the Baltic States were small, mostly company size with limited numbers of mechanized equipment, aircraft, and ships. These exercises clearly were overmatched by Russia's contingent that has shown Moscow's ability to mobilize up to 90,000 personnel, with mobilization times as short as 48-72 hours. (To put this in perspective, 48 hours marks the beginning of the NATO decision-making cycle.)

THE LIMITS OF "STRATEGIC ADAPTATION"

Putin's military adventurism in Crimea and eastern Ukraine has also meant that the very idea of NATO enlargement—heretofore a largely cost-free exercise—has been transformed into a deadly game whereby declarations by themselves no longer suffice. By rolling into Ukraine, Putin mooted the most basic of questions: Where does Europe end and to what extent are we in fact committed to common defense?

The larger question is one of NATO's overarching strategic vision. Since the war in Ukraine, NATO has become "particularized" to an unprecedented degree, whereby the security optics of individual European member states now drive the debate to a greater extent than at any time since the end of the Cold War. The northeastern and southeastern flank countries are both commendably more proactive in their commitment of resources to defense, but also increasingly, if understandably, narrowly focused in their perspective on the future of the Alliance, seeing its role increasingly in terms of territorial defense. In Poland, the Baltic States, and Romania, the recent history of Russian (Soviet) domination remains the immediate reference point for thinking about collective defense, generating persistent calls for a "strategic adaptation" of the Alliance. These newer members who remain the most exposed to a Russian attack—hybrid, conventional, or even nuclear—are also the most eager to buttress their NATO security guarantees with direct defense cooperation with the United States, seeking a strategic security relationship with Washington of the kind only a few select states in different parts of the world enjoy today. The surge in Russia's involvement in the war in Ukraine has transformed the relationship into one in which an increasingly elaborate pattern of cooperation between the United States and the frontier allies exists. The question remains whether the United States will respond to these overtures beyond the current increase in political reassurance and limited military exercises in the region. In addition to its commitment to NATO, Washington's competing priorities in Asia and the Middle East make it doubtful that Washington will fundamentally alter its strategic priorities. At the very least, if the frontier allies expect to gain significantly

in their security relations with the United States, the current trends in the U.S. defense budget make this a questionable assumption at best.

The overarching question for NATO's strategic debate is how different countries perceive the Russian threat and consequently how they envision the role of the Alliance going forward. While the countries along the northeastern frontier see Moscow's growing military prowess as an urgent threat, the situation is different for the largest players in Europe: France; to a certain extent, the United Kingdom; and, especially, Germany, which believes that the existence of NATO is more important than what it actually does. Hence the territorial defense issues now touted by frontier NATO states, are for the largest European countries, important but nonetheless somewhat tangential commitments against which to measure the totality of Europe's relations with Russia, its important business interests and the larger question about the future of Europe's normative order. In this culturally postmodern but economically mercantile Europe, there seems to be no contradiction between the tough rhetoric on Russia's war on Ukraine, the general disavowal of a military solution there, and the contemplated negotiations of another leg of the Nord Stream pipeline or other future business deals. These differences in how various European countries see their relations with Russia have resulted in growing fissures between "old" and "new" members. On the part of a number of West Europeans, there is a growing sense of buyer's remorse over letting the Central Europeans and the Baltic States into the club in the first place, for the price to pay in their relations with Russia seems higher today than for what they had bargained. Even though the Warsaw summit will without a doubt generate multiple expressions of allied solidarity, these larger divisions over NATO's

strategic vision going forward are not likely to change any time soon, if at all, as the combination of disparate business interests and regional security considerations remain.

This leaves the United States as the key provider of allied security at the same time the country is in most need of clarity as to what assets Europe can bring to an increasingly complex and dangerous international environment, from Asia through the Middle East to Eastern Europe. Here things get complicated. On top of the Europeans' failure to live up to their defense spending commitments, with only 4 out of 28 countries meeting the target, as the Secretary General recently warned, total NATO defense spending this year will decline 1.5 percent. Although 19 of the 28 members are increasing their outlays on defense in real terms, collective NATO defense spending went down from US\$968 billion in 2013, to US\$942 billion in 2014, shrinking to US\$892 billion in 2015.¹⁴ Germany, the country the Obama administration relied on to manage and resolve the Ukrainian crisis, has questioned the rationale of the 2 percent of GDP defense commitment, sticking to 1.3 percent of GDP on defense in 2015 and arguing that the size of the country's GDP makes up for this reduced number.¹⁵ (Even though Germany announced that it would increase defense spending in 2016, its defense minister acknowledged that most of the allocated funds would go to increased personnel costs.) It appears that even though European allies declared their readiness to make new commitments to defense in 2016, it will be up to the United States to lead the strategic reorientation of the Alliance and to convince Europe to shoulder the security burden equitably.

The question of Europe's overall unwillingness to step up to the plate on defense expenditures has been

raised repeatedly with little overall success by U.S. politicians, analysts, and the media. Regardless of how mundane this argument may seem in Europe today, the simple reality is that doing more with less has always been a lark, and that the U.S. effort to develop a new strategic approach for the Alliance requires money. Most importantly, no amount of discussion of strategy will substitute for the paucity of resources. The current situation in which the United States provides 70 percent of NATO defense spending is not unsustainable. After all, Europe's reluctance to spend money on defense is nothing new. Rather, it constitutes a fundamental limitation of what NATO's European allies will be able to do with the United States, and hence how relevant European security concerns will be in Washington in the coming years. This ultimately constitutes the most basic limitation on how effective the current round of strategic adjustment is going to be vis-à-vis Russia. While Europe celebrates the accelerated exercise tempo, it defaults to the United States to develop a new playbook for NATO, not just for Europe but also for other areas of the world where security conditions will likely continue to deteriorate. Again, a credible response to the Russian aggression in Eastern Europe requires a larger adaptation of the Alliance globally. NATO needs to be able to respond collectively against cyber and terrorist threats, and to work jointly as a new field of transnational threats emerges. Most of all, as allies, if Europe wants to have a credible security guarantee from the United States against Russia, in return it must accept its fair share of security responsibility, and that means making the principle of mutuality the centerpiece of the strategy going forward. As much as Europe wants to continue to rely on the United States for defense, Washington has to have at

least a clear sense that in crises outside of Europe, the allies are willing and able to contribute real capabilities. Again, that means Europe needs to make a significantly higher investment in defense, without which it will never field the new capabilities it needs to work with the United States going forward. If Europe continues to ignore this investment imperative, it may not destroy the Alliance outright, but it will continue to cheapen and ultimately undermine NATO's credibility, especially against Russia, and, in the end, its ability to deter and defend in a crisis. No amount of debate on "strategic adaptation" or sporadic exercises in Central Europe and the Baltics is going to change the way Moscow looks at NATO's capabilities.

It will become clear whether the Alliance will be able to generate the consensus and resources necessary for a deterrent posture in the months following the Warsaw summit. We shall see whether declarations made in Warsaw will see the same fate as the solemn commitments made in Wales. In Newport, NATO declared its readiness to meet the 2 percent of GDP defense spending targets and increase capabilities and readiness levels. However, it soon became clear that competing domestic agendas in Europe would make such declarations all but impossible to implement. Seen from Moscow's vantage point, the record of the past 2 years can be viewed as a grab bag of half-measures, especially as Europe continues to debate the long-term viability of its economic sanctions against Russia.

An important issue dividing NATO allies over what steps to take to ensure deterrence along the northeastern flank is an argument over the tradeoff between taking more proactive measures to reinforce the frontier versus the probability that Moscow would in fact increase the level of escalation up to an invasion of the

Baltic States or Poland. The argument sidesteps the fact that, while not highly probable, Russian aggression across the NATO line is nonetheless sufficiently plausible to merit serious military planning and an examination of what measures are necessary to ensure that its likelihood remains low. Europe's continued inability to come together around a shared view of the Russian threat remains the political weak point in NATO, ensuring that discussions on strategy retain a certain tentative quality going forward.

Putin's actions in Ukraine, and subsequently in Syria, indicate that he is willing to use military power, with the risks outweighed in his view by the larger strategic objective of regaining Russia's influence along its periphery. In both theaters, Russia has been able to demonstrate that it has the ability to use its armed forces to achieve its political objectives in a way that marks a qualitatively different level of confrontation with the United States. In Europe in particular, Putin has demonstrated that his military capabilities outmatch those of NATO. The political message that Russia will continue to escalate if confronted with counter pressure from NATO has polarized the Alliance—for instance, compelling Germany to continue seeking a compromise, while the Baltic States and Poland keep up the internal pressure to gain permanent NATO installations on their territory.

In addition to divergent assessments of the risk Russia poses to Europe, the Alliance grapples with competing internal economic interests. Despite the collapse of energy prices that severely deplete Moscow's income stream, Europe still relies on the Russian Federation for a large portion of its energy needs, while Russia's investments in Europe's economies over the past decade have given Putin the ability to influence

Europe's business community and hence the internal debate in NATO. Attempts to reassure the allies along the frontier while continuing to keep the option of negotiating with Russia open manifest, on the one hand, NATO's persistent rotational exercise regime, and on the other, the restarting of the NATO-Russia Council just before the Warsaw summit. This demonstrates that the Alliance has yet to reach the level of political consensus to take the steps necessary to show its unequivocal commitment to a new strategy for the collective defense of the frontier. Absent political unity in NATO on the threat assessment, and consequently on how best to adapt its current Russia strategy, the ongoing efforts to ensure robust and effective deterrence along the Baltic-Central European frontier lack credibility where it matters most—in Moscow.

IT IS WHAT IT IS

The continued ambiguity of NATO's response to Russian military pressure along the periphery suggests that, notwithstanding the steadfast declarations of commitment to the deterrence-cum-defense of the Baltic States and Central Europe, NATO's political leadership seems willing to risk Europe's security on the premise that Russia will not attack across the Alliance red line. This assessment is difficult to justify in light of the record of the strategic and operational realities in the region. NATO needs to be prepared for Putin to act on a continuum of the escalatory ladder, from the lowest level all the way to a full-on military conflict. There are serious reasons to question whether, in fact, the allied efforts at deterrence and defense are credible and if, in fact, NATO can respond in solidarity should a crisis along the northeastern frontier

materialize. The problem is that the Alliance's current capabilities and plans fall short of meeting these objectives even part way. This is especially true about Russian anti-aircraft and anti-ship missiles, both land and sea-based, the deployment of which has made it virtually impossible under the present disposition of NATO forces for the Alliance to operate in the Baltic, all but rendering the sea a self-contained Russian enclave. Most importantly, current planning fails to address the unacknowledged "elephant in the room": the threat of Russian nuclear weapons, whereby "first use" is now embedded in Russian 2014 military strategy.

The paralyzing impact of Russia's implicit threat of nuclear attack is arguably the most gravely ignored—and at the same time essential—piece of the current conversation. It is in fact largely a moot point that NATO can credibly deter Russia so long as the nuclear, and by extension maritime, pieces remain unaddressed. In other words, so long as NATO has no credible A2/AD capabilities deployed and exercised, its persistent rotational presence will largely be one of political messaging. This is especially true when considered against the capabilities that Moscow has put in place in its Western and Southern Military Districts, including the 300,000 troops stationed in the former and the approximately 72,000 in the latter.¹⁶ Increasing Russia's military capabilities is an integral part of its growing presence along the flank that the Alliance continually fails to be in a position to address. Even with the much-debated NATO rapid reaction force of 40,000 and the VJTF concept of 5,000 post-Wales, NATO's capabilities in place have never been adequate to the task.

The larger question is whether Washington can maintain enough of a commitment to the reinforcement of the northeastern flank to stabilize an increasingly

fluid situation, especially without permanent military installations there. One clear gain for Russia vis-à-vis NATO has been the degree of polarization its continued pressure in the region has created over how the allies see their internal long-term commitment to each other. Most importantly, whether individual states on the periphery are likely to continue to seek a separate security arrangement with the United States, is a clear, if not publicly articulated goal of all of the post-communist frontier countries.

Here a factor not frequently discussed is the extent to which public opinion in Europe remains divided over assisting the new allies should Article 5 be invoked. As recent Pew Foundation polling data suggests, the majority in “old Europe” is against not only responding to further Russian aggression in Ukraine or elsewhere in the post-Soviet space but, also, even to fulfilling their allied obligation to come to the assistance of allies on the northeastern flank should Russia attack there.¹⁷ In short, even though NATO’s leadership insists it is moving from reassurance to deterrence, the means put in place reflect a continually divided and conflicted Alliance. The choice of “persistent rotational presence” as the preferred approach to deterrence in place of permanent U.S. and NATO bases in the Baltic States, Poland, and possibly Romania, falls short of the often-repeated demands from the frontier states to end the two-tiered approach to NATO membership. Separating “old” from “new” allies seemingly encourages Moscow to continue putting pressure on the region. Moreover, the compromise option the allies selected, largely because of continued opposition in Berlin to the idea of permanent installations, paradoxically increases the political costs associated with the decision. While there is no question that Moscow would

strongly object to permanent U.S. bases in the Baltics and Poland, had the Alliance opted to station troops there permanently, it would pay this political price only once. In contrast, the agreed-upon rotational posture ensures that each time NATO decides to perform an exercise, Russia will respond, viewing such exercises as a provocative act. In short, the compromise solution of persistent rotations instead of permanent bases signals that NATO is conflicted and divided over what should be the appropriate response, largely ensuring that Moscow will continue to seek to leverage those differences and undermine allied solidarity.

In the final analysis, a NATO response to the Russian takeover of Crimea and aggression in eastern Ukraine that does not take the necessary step of putting permanent bases in the Baltic-Central European region will continue to fail to meet credible deterrence. Without permanent bases, the proposed NATO posture lacks the requisite credibility and robustness to complicate sufficiently Putin's military planning, and hence to lower the risk of aggression. The current debate, largely focused on assessing the relative probability of Putin choosing to jump NATO's "red line," misses the key point that the continued ambiguity of NATO's response weakens the Alliance itself, calling into question how the allies would act in a crisis.

There are no shortcuts when it comes to credible deterrence. Instead of responding with symbolic deployments and exercises as it continues to war game Putin's intentions, NATO should have announced already in Wales that it was moving decisively to establish permanent bases to deter a Russian invasion in the Baltic States and Poland. This would have ensured that, should Moscow decide to move, there would be no doubt such action would lead to a sustained and costly

fight against American and NATO forces. Instead, the decision to place small U.S. and European forces in the region, with the promise of reinforcements in a crisis, begs the question in the eyes of Russian military planners—should Russia choose to cross NATO’s line—whether the commitment of such a small U.S. force will actually generate an allied response. Considering the nature of the threat to European and transatlantic security posed by Putin’s revanchist policies since 2008, NATO has missed an opportunity to use the past 2 years since Wales to adapt to the new strategic realities in Europe. While the Europeans bear much of the responsibility for this state of affairs, the United States, as the dominant player in the Alliance, shares it as well. The continued reduction in the size of the U.S. military, coupled with cuts in U.S. defense spending that have put it on a trajectory to decline from 3.6 percent of GDP down to 2.6 percent, has imposed significant constraints on America’s military resources, especially those that can be allocated to Europe. Making the case in the U.S. Congress for a renewed long-term military redeployment to Europe would admittedly be a hard sell; however, the current less-direct approach to deterrence carries with it the serious risk that it will fail to deter Russia’s further moves. In the final analysis, the Cold War should have taught the allies that when it comes to deterrence, there is no substitute for the permanent stationing of a robust military force as both a sign of commitment and a credible political message to friend and foe alike.

Every successful strategy must begin with a realistic assessment of the problem, and for Europe today, the problem is a resurgent and revanchist Russia. NATO remains without a doubt the most successful Alliance in history. Yet, since the Russian invasion of

Crimea and the ongoing war in Ukraine, it has become an organization riven with strategic self-doubt. The Alliance, which went from the collective defense of the Cold War era, through out-of-area operations in the Balkans, to International Security Assistance Force (ISAF) in Afghanistan and a joint operation in Libya, confronts a stark choice. The Alliance must find the resources to fulfill the increasingly urgent, collective defense needs of Europe and the United States on the continent and balance those tasks with continued global requirements, be they in response to cyber, terrorism, or other transnational threats, or else become a relic of a bygone era whose glittering but hollowed-out shell will serve to underscore its growing strategic irrelevance. That is an outcome that neither the United States nor its European allies can afford when it comes to dealing with Putin's Russia.

ENDNOTES - CHAPTER 22

1. The views expressed here are those of the author and do not represent the policy or position of the George C. Marshall European Center for Security Studies, the Department of Defense, or the U.S. Government.

2. Gordon Lubold and Julian E. Barnes, "Pentagon Readies More Robust U.S. Military Presence in Eastern Europe," *The Wall Street Journal*, March 30, 2016, available from <http://www.wsj.com/articles/pentagon-readies-more-robust-u-s-military-presence-in-eastern-europe-1459324801>.

3. Sam Jones, "NATO Rapid Unit Not Fit for Eastern Europe Deployment, Say Generals," *The Financial Times*, May 15, 2016, available from <https://www.ft.com/content/7ac5075c-1a96-11e6-b286-cddde55ca122>.

4. Agence France-Presse, "NATO to Deploy 4 'Robust' Battalions in Baltics, Poland," *Defense News*, June 13, 2016, available

from <http://www.defensenews.com/story/defense/international/europe/2016/06/13/nato-baltics-poland-deployment/85821816/>.

5. Duncan Robinson and Henry Foy, "NATO Sets Out Plan to Put Troops on Eastern Flank," *The Financial Times*, June 14, 2016, available from <https://www.ft.com/content/379b84d8-3256-11e6-bda0-04585c31b153>.

6. "Remarks at Atlantik Brücke: 'U.S., Germany, & NATO Are Moving Forward Together' As Delivered by Secretary of Defense Ash Carter, Berlin, Germany," U.S. Department of Defense, June 22, 2015, available from <http://www.defense.gov/News/Speeches/Speech-View/Article/606684/remarks-at-atlantik-brcke-us-germany-nato-are-moving-forward-together>.

7. The author's calculations are based on 2015 data from Stockholm International Peace Research Institute (SIPRI), *Jane's Defence Weekly*, the Finnish defense ministry, and the Polish defense ministry.

8. David A. Shlapak and Michael Johnson, *Reinforcing Deterrence on NATO's Eastern Flank: Wargaming the Defense of the Baltics*, Santa Monica, CA: RAND Corporation, 2016, available from http://www.rand.org/pubs/research_reports/RR1253.html.

9. Remarks by Secretary Carter at Allianz Forum, "US, Germany, & NATO are Moving Forward Together," in Berlin, Germany, Presenter: SECDEF Carter, June 22, 2015, available from <http://www.defense.gov/Transcripts/Transcript.aspx?TranscriptID=5641>.

10. Terje Solsvik, "Russia not an immediate threat to NATO states, Stoltenberg says," Reuters, June 4, 2015, available from <http://www.reuters.com/article/2015/06/04/us-ukraine-crisis-nato-idUSKBN0OK00H20150604>.

11. "Es ist wichtig, unseren Nachbarn deutlich zu machen, dass wir für ihren Schutz einstehen", sagt die Ministerin' ("It is important to make clear to our neighbors that we stand up for their protection", says the Minister"), June 18, 2015, available from <http://www.bild.de/politik/ausland/nato/probt-krieg-gegen-russland-41397280.bild.html>.

12. "Minister Witold Waszczykowski: all NATO states must have the same security status," Polish Ministry of Foreign Affairs, June 2, 2016, available from https://mfa.gov.pl/en/news/they_wrote_about_us/minister_witold_waszczykowski_all_nato_states_must_have_the_same_security_status;jsessionid=120E750AF03B91E5261ACC7A30880CE7.cmsap1p.

13. David Welna, "NATO War Games in Poland Get Russia's Attention," National Public Radio, June 17, 2016, available from <http://www.npr.org/sections/parallels/2016/06/17/482432771/nato-war-games-in-poland-get-russias-attention>. See also "Road to Anakonda," U.S. Army Europe, n.d., archived page available from <https://web.archive.org/web/20160721011306/http://www.eur.army.mil/anakonda/>.

14. See Kedar Pavgi, "NATO Members' Defense Spending, in Two Charts," *Defense One*, June 22, 2015, available from <http://www.defenseone.com/politics/2015/06/nato-members-defense-spending-two-charts/116008/>.

15. "Von der Leyen dubious about NATO's 2-percent rule," available from <http://www.dw.com/en/von-der-leyen-dubious-about-natos-2-percent-rule/a-17907143>.

16. Anna Maria Dyner, "Russia Beefs Up Military Potential in the Country's Western Areas," *PISM Bulletin*, June 13, 2016.

17. Bruce Stokes, "Views of NATO and its Role Are Mixed in U.S., Other Member Nations," Pew Research Center, March 28, 2016, available from <http://www.pewresearch.org/fact-tank/2016/03/28/views-of-nato-and-its-role-are-mixed-in-u-s-other-member-nations/>.

ABOUT THE CONTRIBUTORS

ABOUT THE EDITOR

STEPHEN J. BLANK is an internationally recognized expert on Russian foreign and defense policies and international relations across the former Soviet Union. He is also a leading expert on European and Asian security, including energy issues. Since 2013, he has been a Senior Fellow at the American Foreign Policy Council in Washington. From 1989 to 2013, he was a Professor of Russian National Security Studies at the Strategic Studies Institute (SSI) of the U.S. Army War College (USAWC) in Carlisle, PA. Dr. Blank has been Professor of National Security Affairs at SSI since 1989. From 1998 to 2001, he was Douglas MacArthur Professor of Research at USAWC. Dr. Blank has consulted for the Central Intelligence Agency, major think tanks, and foundations; chaired major international conferences in the United States and abroad in Florence, Italy; Prague, Czech Republic; and London, United Kingdom; and has been a commentator on foreign affairs in the media in the United States and abroad. He has also advised major corporations on investing in Russia and is a consultant for the Gerson Lehrmann Group. He has published over 1,300 articles and monographs on U.S., Soviet/Russian, Asian, and European military and foreign policies, including publishing or editing 15 books. He has testified frequently before Congress on Russia, China, and Central Asia for business, government, and professional think tanks in the United States and abroad. Prior to his appointment at USAWC in 1989, Dr. Blank was Associate Professor for Soviet Studies at the Center for Aerospace Doctrine,

Research, and Education of Air University at Maxwell AFB, Montgomery, AL. He also held the position of Assistant Professor of Russian History, University of Texas, San Antonio, TX, from 1980 to 1986, and Visiting Assistant Professor of Russian history, University of California, Riverside, CA, from 1979 to 1980. Dr. Blank holds a B.A. in history from the University of Pennsylvania, and M.A. and Ph.D. in Russian history from the University of Chicago.

ABOUT THE CONTRIBUTORS

ARIEL COHEN is a Senior Research Fellow at the Atlantic Council, a premier Washington, DC, think tank; founder and Principal of International Market Analysis (a Washington, DC-based global risk advisory); founder and Director of the Center for Energy, Natural Resources, and Geopolitics; and a Senior Fellow at the Institute for Analysis of Global Security; Senior Research Fellow in Russian and Eurasian Studies and International Energy Security at the Heritage Foundation. He has led energy crisis simulation games and was the lead author of reports summarizing their conclusions and policy recommendations. Dr. Cohen works as a consultant to both the executive branch and the private sector advising on Russia, Eurasia, Eastern and Central Europe, and the Middle East; testifies regularly before the U.S. Congress, and is a well-known global media personality, appearing on Bloomberg, CNN, FOX, BBC, Al Jazeera, and many other TV channels in the former Soviet Union and the Middle East. Dr. Cohen's particular expertise lies in political risk, national security, energy and policy, geographically focused on Russia, Eurasia, Central and Eastern Europe, and the Middle East. His knowledge of interna-

tional security, economics, law, political reform, energy policy, and violent extremism make him one of the most sought-after consultants in Washington, DC. Dr. Cohen co-authored, inter alia, studies *Russia 2020*, *Russia 2025* (World Economic Forum) and *Multilateral Deterrence Study* for the Office of the Secretary of Defense. His 7 books, 3 monographs, over 30 book chapters, and over 1,000 articles were published around the globe. Dr. Cohen holds an M.A. in law and diplomacy and a Ph.D. from the Fletcher School of Law and Diplomacy.

ISABELLE FACON is a Senior Research Fellow at Fondation pour la Recherche stratégique and a specialist on Russian security and defense policies. She has been working extensively on Russian military affairs, military reform process, defense industry issues, and the evolution of civil-military relations. She has also devoted much research to the study of Russia's foreign policy. Isabelle Facon has been a Senior Lecturer at Ecole polytechnique (Geopolitics of Eurasia Seminar) since 2008. She is a member of the Editorial Board of the French monthly *Revue de Défense nationale*, of the Scientific council of the review *Questions internationales*, and of the online review *Journal of Power Institutions in Post-Soviet Societies*.

RAY FINCH is a Eurasian Military Analyst for the Foreign Military Studies Office (FMSO) at Fort Leavenworth, KS. He has produced a number of analytical studies dealing with the Russian military and society, and is both an editor and frequent contributor to FMSO's *OE Watch*. Prior to this, he worked as the Assistant Director in the Center for Russian, East European and Eurasian Studies at the University of Kansas, Lawrence, KS, where he handled administrative tasks and

taught courses related to Russian culture. Mr. Finch spent 20 years in the U.S. Army, first as a Field Artillery Officer and then as a Eurasian Foreign Area Officer, serving in Germany, Korea, Russia, and the continental United States. Upon retiring from the military in 1998, he spent a year as the Director of Corporate Security for Kroll Associates in Moscow. He holds B.A. and M.A. degrees from the University of Kansas.

PENTTI FORSSTRÖM is a retired Lieutenant Colonel from Finland, and served as a Research Officer at the National Defense University, Washington, DC. His main duty was to research the development of military strategy of Russian armed forces. Previously he has served as the Defense Attaché in Moscow and in Minsk and in various operational posts in the Finnish Defense Staff and in the National Defense University. Lieutenant Colonel (Ret.) Forsström is finalizing his doctoral dissertation on development of military strategy of the Russian armed forces. In 2009, he graduated from the General Staff Academy of the Russian armed forces.

SAM GARDINER is a retired U.S. Air Force Colonel. While on active duty, he served at NATO headquarters in Mons, Belgium, in Thailand during the Vietnam War, and at the Pentagon. He has led numerous war games for the U.S. Government and armed forces relating to issues like North Korea and Iran and commented extensively on Russian military developments. He studied at the Armed Forces Staff College, Norfolk, VA.

KEIR GILES is the Director of the Conflict Studies Research Centre (CSRC), a group of deep subject matter

experts on Eurasian security formerly attached to the United Kingdom (UK) Ministry of Defence. Now operating in the private sector, CSRC provides in-depth analysis on a wide range of security issues affecting Russia and its relations with overseas partners. After working with paramilitary aviation in Russia and Ukraine immediately following the fall of the Soviet Union, Mr. Giles joined the BBC Monitoring Service (BBCM) to report on political and military affairs in the former Soviet space. He also worked for CSRC at the UK Defence Academy where he wrote and briefed for UK and North Atlantic Treaty Organization (NATO) government agencies on a wide range of Russian defense and security issues. He is an Associate Fellow of the Royal Institute of International Affairs (Chatham House) in London, UK, as well as a regular contributor to research projects on Russian security issues in both the United Kingdom and Europe. Mr. Giles's work has appeared in a wide range of academic and military publications across Europe and in the United States.

ALEKSANDR GOLTS worked from 1980 to 1996 with the *Krasnaya zvezda* (*Red star*) editorial board, Soviet, then Russian military daily (Moscow, Russia). From 1996 to 2001, he served as military editor of *Itogi*, a premier Russian news magazine (Moscow). From 2001 to 2004, he worked for the *Yezhenedelnyi journal* as deputy editor-in-chief (Moscow). He now works as deputy editor for website EJ.RU. He also works as military analyst for the *New Times* magazine in Moscow. From 2002 to 2003, Mr. Golts spent a year at the Center for International Security and Cooperation (CISAC) of Stanford University as visiting fellow. In 2017, he was a visiting fellow for Kennan institute in Washington, DC. Mr. Golts holds an M.A. in journalism from

the Department of Journalism of the Moscow State Lomonosov University.

DANIEL GOURÉ is a senior vice president with the Lexington Institute, Arlington, VA. He worked in the Pentagon during the administration of President George H. W. Bush, and he has taught at Johns Hopkins and Georgetown universities as well as the National War College.

JAMES HOWE is a former U.S. Army Officer with command and intelligence assignments and was a nuclear weapons employment officer (25 years active and reserve). He is currently Vice President, Threats, Technology, and Future Requirements for Vision Centric, Inc., a Systems Engineering and Technical Assistance contractor to U.S. Army Space and Missile Defense Command. From 2001 to 2005, he was Director, Threats and Future Requirements for Boeing, Missile Defense Division, and has over 30 years' experience as a strategic level researcher and analyst supporting development of advanced weapon concepts. He conducted research and analysis in the areas of future warfare, to include the role of cyberwarfare in intercontinental conventional war, foreign missile threat analysis, and missile defense issues. Mr. Howe authored a study on "Future Intercontinental Conventional War" that was used as the basis of an Office of the Secretary of Defense/Office of Net Assessment war game and created the intellectual foundation of the advanced hypersonic weapon, a long-range strike system. Mr. Howe holds an M.S. in international economics from Oregon State University and an M.A. in international relations from University of Southern California.

JACOB KIPP retired from federal service in September 2009 and is currently an Adjunct Professor at the University of Kansas, a contributor to the Eurasia Daily Monitor of The Jamestown Foundation, a consultant for the Nonproliferation Policy Education Center, Associate Editor of the Journal of Slavic Military Studies, and a member of the editorial board for the University Press of Kansas Series: Modern War Studies. From 1983 to 1985 he was a research Fellow at the Center for Strategic Technology at Texas A & M University. In January 1986, he joined the newly-established Soviet Army Studies Office (SASO) at Ft. Leavenworth, Kansas, as a senior analyst. In 2003, he became director of FMSSO until October 2006. In 2006, he joined the School of Advanced Military Studies (SAMS) as Deputy Director. From 1992 to 2001, he served as the U.S. editor of *European Security*. From 1971 to 1985, he taught Russian and Military and Naval History at Kansas State University, Manhattan, KS. Dr. Kipp has published extensively on Russian and Soviet naval and military history, and has published 9 books, 47 journal articles, and more than 50 chapters in scholarly books. Dr. Kipp holds a Ph.D. in Russian history from the Pennsylvania State University.

ANDREW MICHTA is Dean of the College of International and Security Studies at the George C. Marshall European Center for Security Studies in Germany. Previous assignments are Professor of National Security Affairs at the U.S. Naval War College, Adjunct Fellow at the Center for Strategic and International Studies (Europe Program), and an affiliate of the Minda de Gunzburg Center for European Studies at Harvard University. From 1988 to 2015, he was the M. W. Buckman Distinguished Professor of International Studies

at Rhodes College, Memphis, TN. From 2013 to 2014, he was a Senior Fellow at the Center for European Policy Analysis in Washington, DC, where he focused on defense programming. From 2011 to 2013, he was a Senior Transatlantic Fellow at the German Marshall Fund of the United States and the founding director of the Warsaw office. From 2009 to 2010, he was a Senior Scholar at the Woodrow Wilson International Center for Scholars in Washington, DC. He served as Professor of National Security Studies and Director of Studies of the Senior Executive Seminar at the Marshall Center from 2005 to 2009. He was a Visiting Scholar at the Hoover Institution on War, Revolution, and Peace at Stanford University, Stanford, CA; a Public Policy Scholar at the Wilson Center; and a Research Associate at the Institute for European, Russian, and Eurasian Studies at the George Washington University, Washington, DC. Dr. Mitchta has published a number of books and articles on the North Atlantic Treaty Organization, European security, Central and East European politics, and U.S. foreign and security policy. Dr. Mitchta holds a Ph.D. in international relations from the Johns Hopkins University, Baltimore, MD.

SEBASTIEN PEYROUSE is a research professor at the Central Asia Program of the Institute for European, Russian, and Eurasian Studies, George Washington University. His main areas of expertise are political systems in Central Asia, economic and social issues, Islam and Christian minorities, and Central Asia's geopolitical positioning toward China and India. Dr. Peyrouse has published several monographs, including *Turkmenistan. Strategies of Power, Dilemmas of Development* (Armonk: M. E. Sharpe, November 2011), *Des Chrétiens entre Athéisme et Islam. Regards sur la Question*

Religieuseen Asie Centrale Soviétique et Post-Soviétique (Paris: Maisonneuve et Larose, 2004), with Marlène Laruelle, *The 'Chinese Question' in Central Asia. Domestic Order, Social Changes, and the Chinese Factor* (London, New York: Hurst, Columbia University Press, December 2011), and *Globalizing Central Asia: Geopolitics and the Challenges of Economic Development* (Armonk: ME Sharpe, 2012). Dr. Peyrouse holds a Ph.D.

STEVEN ROSEFIELDE is Professor of Economics at the University of North Carolina at Chapel Hill, NC, and has served simultaneously as Adjunct Professor at various universities including the U.S. Naval Postgraduate School, Monterey, CA. He has taught widely across the globe in Russia, Japan, China, and Thailand, and has been a visiting research scholar at the Stockholm School of Economics, Bank of Finland, Trento University, Central Economics and Mathematics Institute, Moscow, Russia. During the Soviet era, 1977-1981, he was an advisor to the Office of the American Secretary of Defense and Swedish Defense Institute), and also served as Coordinator of the U.S.-USSR Joint Cooperative Research Program on Science and Technology. After the Soviet Union collapsed, he refocused his attention on Asia and the European Union while remaining actively engaged with Russia and Eastern Europe. Throughout his career he has striven to integrate the lessons learned in high level government service with advanced economic theory. His special areas were Soviet economy and comparative systems theory including Asian economic systems, labor managed firms and international trade. In 1997, he was inducted into the Russian Academy of Natural Sciences. Professor Rosefielde authored many publications including four books co-authored with Professor Dan-

iel Quinn Mills from the Harvard Business School: *The Trump Phenomenon and the Future of US Foreign Policy* (Singapore, World Scientific); *Democracy and Its Elected Enemies: American Political Capture and Economic Decline* (Cambridge, UK: Cambridge University Press); *Masters of Illusion: American Leadership in the Media Age* (Cambridge, UK: Cambridge University Press); and *Global Economic Turmoil and Public Good* (Singapore, World Scientific). He is also single author for the books: *Comparative Economic Systems: Culture, Wealth, and Power in the 21st Century* (Hoboken, NJ: Wiley-Blackwell); *The Kremlin Strikes Back: Russia and the West After Crimea's Annexation* (Cambridge, UK: Cambridge University Press); *The Russian Economy: From Lenin to Putin* (Hoboken, NJ: Wiley-Blackwell), *Red Holocaust* (Abington, UK: Routledge); and *Asian Economic Systems* (Singapore, World Scientific Publishers). Professor Rosefielde holds an A.M. degree in Soviet regional studies and a Ph.D. in economics from Harvard University, Cambridge, MA.

MARK SCHNEIDER is a Senior Analyst with the National Institute for Public Policy. Before his retirement from the Department of Defense Senior Executive Service, he served in a number of senior positions within the Office of Secretary of Defense for Policy, including Principal Director for Forces Policy, Principal Director for Strategic Defense, Space and Verification Policy, Director for Strategic Arms Control Policy and Representative of the Secretary of Defense to the Nuclear Arms Control Implementation Commissions. Dr. Schneider also served in the senior Foreign Service as a Member of the State Department Policy Planning Staff.

PAUL SCHWARTZ is a Senior Associate in the Russia and Eurasia Program at the Center for Strategic and International Studies in Washington, DC. He has extensive experience analyzing Russia's military and security policy, and is considered a subject matter expert on Russian weapons systems, defense technologies, and its military-industrial base. He has participated in numerous projects and written extensively on topics in this area, including Russian science and technology, its global arms trade, and its defense relations with other countries, especially China. He is routinely consulted by members of the media on issues relating to the Russian military. Mr. Schwartz also has extensive prior industry experience as both a manager and technology professional at two premier defense companies.

JAMES SHERR is Senior Fellow of the Estonian Foreign Policy Institute/ICDS and an Associate Fellow of Chatham House and between 2008 and 2011, former head of the Russia and Eurasia Programme. He was a member of the Social Studies Faculty of Oxford University from 1993 to 2012, a fellow of the Conflict Studies Research Centre of the United Kingdom (UK) Ministry of Defence from 1995 to 2008, and Director of Studies of the Royal United Services Institute from 1983 to 1985. He is also a Visiting Fellow of the Razumkov Centre, Kyiv, a Senior Associate Fellow of the Institute of Statecraft and a former GMF Bosch Fellow at the Transatlantic Academy, Washington. For 25 years, James Sherr has advised governments in the UK, NATO, the EU about developments in Russia and Ukraine, and has worked closely with Ukraine on defense and security sector reform. Over the past 10 years, he has participated regularly in Baltic security forums. He has published extensively on Soviet,

Russian, and Ukrainian military, security, and foreign policy, as well as energy security and the Black Sea region. His latest book is *Hard Diplomacy and Soft Coercion: Russia's Influence Abroad* (London, UK: Chatham House, 2013). Other publications include *The New East-West Discord: Russian Objectives, Western Interests* (Den Haag, The Netherlands: Clingendael, December 2015); "Ukraine: A War of Narratives and Arms" (in *The Russia Challenge*, Chatham House, June 2015); *The Mortgaging of Ukraine's Independence* (Chatham House, 2010); and *Russia and the West: A Reassessment* (Swindon, UK: UK Defence Academy, 2008). He also has written a commentary on Brexit, "Sovereignty in Isolation: The UK and the West after Brexit," published in *Krytyka* (in English and Ukrainian, July 2016) and a separate commentary in *Diplomaatia* (September 2016).

TIMOTHY THOMAS was a senior analyst at the Foreign Military Studies Office at Fort Leavenworth, KS, when this book was written. He conducts extensive research and publishing in the areas of peacekeeping, information war, psychological operations, low intensity conflict, and political-military affairs. Mr. Thomas was a U.S. Army foreign area officer who specialized in Soviet/Russian studies. His military assignments included serving as the Director of Soviet Studies at the U.S. Army Russian Institute in Garmisch, Germany; as an inspector of Soviet tactical operations under the Organization for Security and Cooperation in Europe; and as a brigade S-2 and company commander in the 82d Airborne Division. Mr. Thomas has written three studies on Russia's military, *Recasting the Red Star, Military Strategy*, and *Kremlin Kontrol*. Mr. Thomas holds

a B.S. in engineering science from the U.S. Military Academy, West Point, NY; and an M.A. in international relations from the University of Southern California, Los Angeles, CA.

RICHARD WEITZ is Senior Fellow and Director of the Center for Political-Military Analysis at Hudson Institute. His current research includes regional security developments relating to Europe, Eurasia, and East Asia as well as U.S. foreign and defense policies. He has authored or edited several books and monographs, published in many journals, and appeared regularly in social and broadcast media. Dr. Weitz holds a B.A. with Highest Honors in Government from Harvard College, Cambridge, MA; an M.Sc. in international relations from the London School of Economics, London, UK; an M.Phil. in politics from Oxford University, Oxford, UK; and a Ph.D. in political science from Harvard University.

THOMAS-DURELL YOUNG is Program Manager Europe, Center for Civil-Military Relations, Naval Postgraduate School, Monterey, CA, Academic Associate for comparative defense planning curriculum, Department of National Security Affairs, and author of *Anatomy of Post-Communist European Defense Institutions: The Mirage of Military Modernity*, (London, UK: Bloomsbury Academic, 2017).

KATARZYNA ZYSK is Professor of International Relations and Contemporary History at the Norwegian Institute for Defence Studies (IFS), where she also serves as Head of Research and Deputy Director. She was Visiting Researcher at the Center for International Security and Cooperation (CISAC) at Stanford University

(2016-17) and subsequently Visiting Research Fellow at the Changing Character of War Centre at the University of Oxford (2017). She is a member of the Hoover Institution's Arctic Security Initiative since 2013 and was a Research Fellow at the Center for Naval Warfare Studies at the U.S. Naval War College, where she also cooperated closely with the War Gaming Department. In 2016, she served as Acting Dean of the Norwegian Defence University College. Following her Ph.D., 2006, on NATO enlargement, her research has focused on international security and strategic studies, including Russia's Arctic policies, geopolitics and maritime security in the Arctic, Russia's military strategy, doctrine and warfare, military transformation and the Russian Navy, and defense innovation. Her published research has appeared in *SAIS Review of International Affairs*, *Bulletin of the Atomic Scientists*, *RUSI Journal*, *Politique Etrangère*, *International Relations*, *Jane's Navy International*, *Asia Policy*, and other journals and books.

U.S. ARMY WAR COLLEGE

**Major General John S. Kem
Commandant**

**STRATEGIC STUDIES INSTITUTE
AND
U.S. ARMY WAR COLLEGE PRESS**

**Director
Dr. Isaiah Wilson, III**

**Director of Research
Dr. Steven K. Metz**

**Editor
Dr. Stephen J. Blank**

**Publications Assistant
Ms. Denise J. Kersting**

**Composition
Mrs. Jennifer E. Nevil**



FOR THIS AND OTHER PUBLICATIONS, VISIT US AT
<https://www.armywarcollege.edu/>

ISBN 1-58487-791-X



This Publication



SSI Website



USAWC Website