



THE
POTOMAC
FOUNDATION

BALTIC SECURITY NET ASSESSMENT

by

Dr. Phillip A. Petersen

and

Nicholas Myers

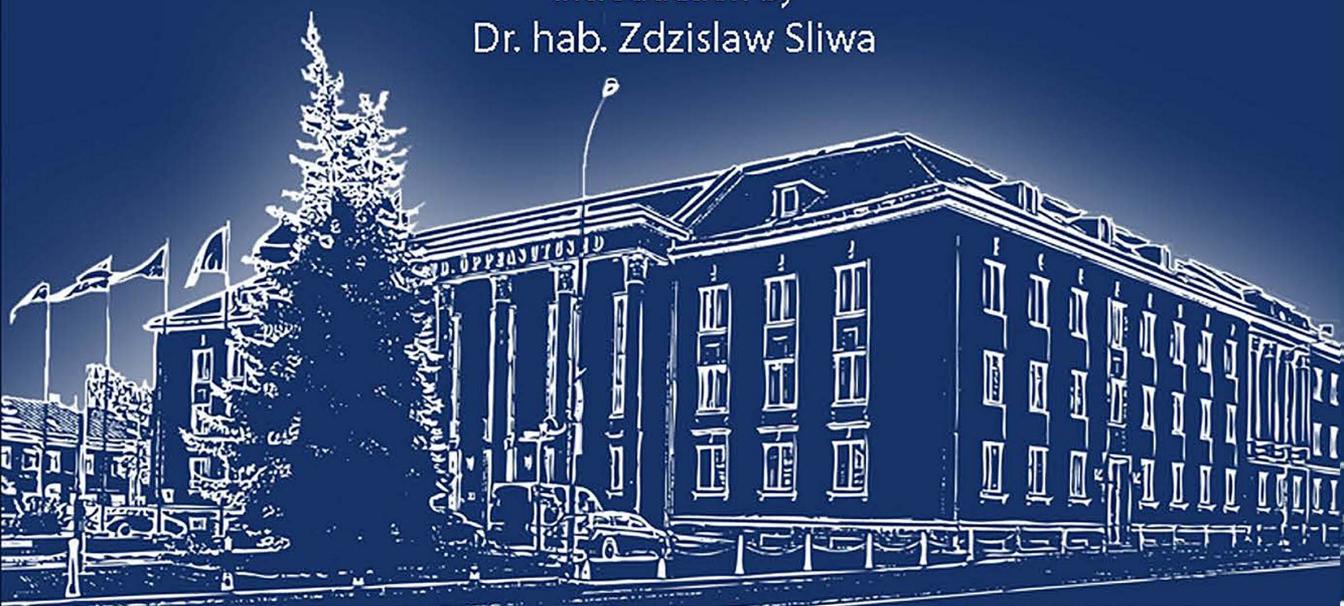
with

Dr. Jānis Bērzins, Edmund Bitinas,

Dr. Phillip A. Karber, Wojciech Zalewski

Introduction by

Dr. hab. Zdzislaw Sliwa



Tartu, January 2018

BALTIC SECURITY NET ASSESSMENT

by

Dr. Phillip A. Petersen

and

Nicholas Myers

with

Dr. Jānis Bērzins

Edmund Bitinas

Dr. Phillip A. Karber

Wojciech Zalewski

Introduction by: Dr. hab. Zdzisław Śliwa



THE
POTOMAC
FOUNDATION



Tartu, January, 2018

The Baltic Security Net Assessment

By: Dr. Phillip A. Petersen and Nicholas Myers

With contribution of: Dr. Jānis Bērziņš; Dr. Phillip A. Karber; Edmund Bitinas; Wojciech Zalewski

Introduction by: Dr. hab. Zdzisław Śliwa

Published by: the Potomac Foundation and the Baltic Defence College

Second edition

First edition published in October 2017 by the Potomac Foundation and the Baltic Defence College

© The Potomac Foundation has granted the Baltic Defense College permission to use and reproduce the publication in whole or in parts with the sole requirement of proper citation.

Cover page: Raido Saar, the Baltic Defence College

Language editing: Brianna Elise Petersen and J. T. Walunas

Printed by: Ecoprint AS

Vabriku 1, Vahi küla

60534 Tartumaa Estonia

E-mail: info@ecoprint.ee

ISBN 978-9949-88-221-2

This Second Edition of the *Baltic Security Net Assessment* volume is published by the Baltic Defense College in cooperation with The Potomac Foundation. The view, information, and opinions expressed in this publication are those of the authors and do not necessarily reflect the official opinion or position of the governments of Estonia, Latvia, Lithuania, and the Baltic Defense College.

The Potomac Foundation has granted the Baltic Defense College permission to use and reproduce the publication in whole or in parts with the sole requirement of proper citation.

The Baltic New Assessment is an educational publication representing the outcome of operational analysis conducted jointly by The Potomac Foundation and the Baltic Defense College in Tartu, to include computer-assisted simulations conducted in 2016. It is intended for academic purposes in support of the mission of the Baltic Defense College by faculty and students of the College within modules and electives in current and coming academic years. The publication will be provided to military staffs and academies of the Baltic States as an educational handbook.

First Edition: October 2017

Second Edition: January 2018

Dedication

Franz-Joseph Schulze (18 September 1918 – 31 January 2005), former Commander-in-Chief, Allied Forces Europe, took Drs. Phillip A. Karber and Phillip A. Petersen when they still wore young men's clothes from their analytical desks into the field. At the height of the Cold War, from the Baltic Sea to the Austrian border, the General demonstrated what an axis of advance on a map looked like when placed on the actual terrain the map represented. Out of deference to General Schulze, Karber and Petersen were briefed along the fence demarcating the line separating the Soviet occupation zone in the east from the Federal Republic of Germany by the commanders of those NATO forces dedicated to keeping Soviet and Warsaw Pact forces on the east side of the Iron Curtain and, if deterrence failed, defending the territory of the Federal Republic of Germany. The experience forever changed how Karber and Petersen thought about military operational art, and made them understand how planning the defense of any piece of terrain begins with walking it. Physically knowing the terrain to be defended – in all seasons – became a lifetime obsession, as well as a lesson to be passed on to every interested Allied student of warfare. Karber has visited most of the borders of Ukraine and Petersen all of the Estonian, Latvian, Lithuanian and Polish borders with Russia and Belarus. Next year, on the one-hundredth anniversary of General Franz-Joseph Schulze's birth, this military professional legacy will continue to be passed on to yet another generation of students of warfare. There is no more appropriate place today to continue General Schulze's legacy than at the Baltic Defense College.



German General Franz-Joseph Schulze (center left) and Dr. Phillip A. Karber (adjusting his glasses) being briefed on terrain and defense plans along the inner-German border.

Acknowledgements

Those whose names appear on the front cover of this edition are not the only contributors to this volume. First of all, I say edition because the publication is neither perfect, nor even complete. It is but the beginning of the assessment that should be completed to be capable of successfully defending the Baltic region from a Russian kinetic attack and, thereby, deter Moscow from expanding its war against modern Europe. We stopped writing on this edition so that political policymakers and military planners could benefit from what has already been accomplished. We hope to subsequently publish expanded and refined editions of *Baltic Net Assessment* so long as the Russian imperial paradigm exists.

Those whose names appear on the front cover initiated the effort now reflected between the current covers, but numerous others made large and small contributions. In fact, had Dr. Nadia Shadlow not come up after a presentation to Major General H.R. McMaster (reflected in Chapter 2) and proposed an expansion of preliminary work on Russian Military Doctrine, it is unlikely that any of the work on Russian Operational Art reflected in “Appendix II: The Impact of Terrain on Russian Military Options in the Baltic Region” would have been accomplished.

Chapter 5 only exists because Dr. Joseph V. Braddock suffered through several failed attempts to discuss “U.S. Military Options and an Action Plan for NATO” and extracted sufficient insight to shape what became the chapter’s argument.

Charlie Long spent many days doing and redoing graphics until they conveyed the desired understanding. Natalya Anfilofyeva labored hard and long to facilitate the construction of more understandable text, and Brianna Elise Petersen and J. T. Walunas proofed the text to find errors that escaped discovery by authors reading the text in their respective brains as opposed to that on the page.

BALTIC SECURITY NET ASSESSMENT

TABLE OF CONTENTS

Introduction

Chapter 1: Assessment at the Operational Level of Opposing Forces..... 1

Summary of Regional Military Assets..... 2

States on the Baltic Sea..... 3

1. Russian Federation..... 3
2. Denmark..... 16
3. Estonia..... 18
4. Finland.....20
5. Germany..... 22
6. Latvia..... 24
7. Lithuania..... 25
8. Poland..... 27
9. Sweden..... 30

Relevant Non-Baltic Sea States..... 32

1. Belarus..... 32
2. Norway..... 35
3. United Kingdom..... 36
4. United States..... 39

Quantitative and Qualitative Weapons Systems..... 40

Logistics and Sustainability..... 41

NATO Resupply..... 45

Mitigation of Options..... 45

The Threat Perspective..... 46

Chapter 2: Operational Assessment..... 48

Definitions..... 50

Military Doctrine 50

Strategy.....	52
Operational Art.....	53
Tactics.....	53
The Conceptual Framework Applied.....	54
The System of Strategic Leadership.....	57
Post-Soviet Operational-Strategic Planning and Exercises.....	63
Ethnic and Religious Divisions.....	67
Transformation to Highly Mobile and Rapidly Reconfigurable Forces.....	78
4 th Generation Nuclear Weapons.....	85
Asymmetries in Opposing Operational Concepts.....	90
Zapad-1999.....	93
Zapad-2009.....	100
Zapad-2013.....	110
Snap Exercises.....	115
NATO and Partner Exercises.....	116
Information Warfare Scenarios.....	117
Chapter 3: Assessment of the Range of Threat Contingencies.....	122
The Theoretical Development of Russian New Generation Warfare.....	132
Asymmetric Warfare.....	139
Low-Intensity Conflict.....	141
6 th Generation Warfare.....	145
Network Centric Warfare.....	146
Reflexive Control.....	149
The Initial Stage of War: Context as the Key.....	154
Evaluation of the Threat Relative to Local Force Capabilities and Terrain Limitations.....	157
Terrain as the Context.....	159
Maneuver by Fires.....	165
Areas Where US Military Aid is Critical.....	166

Chapter 4: Campaign Assessment	168
NATO Operations in a Russian Coalitional Warfare Context.....	168
Establishing a Favorable Socio-Economic and Political Environment.....	170
Special Operations to Misdirect Elites.....	172
Intimidation, Fraud, and Bribery.....	174
Destabilization Operations and Organization of Militant Opposition.....	175
Introduction of Armed Insurgents.....	175
Clandestine Military Intervention.....	176
Use of Electronic Warfare and Reconnaissance Assets.....	177
Overt Military Intervention and Occupation.....	178
Nuclear Threats.....	178
Joint vs. Combined-Arms Planning and Operational Approaches....	180
Joint Operational Approach.....	181
Combined Arms Operational Approach.....	182
Clash of Joint and Combined Arms Operational Approaches.....	185
Observations from Baltic Campaign Simulations.....	186
The Russian Threat.....	187
Belarus Threat.....	188
Baltic Defense.....	188
The Contributions Provided by Poland.....	189
Tactical Nuclear Weapons.....	189
Conclusions on the Tactical and Technological Needs for a Credible Defense.....	190
Tactical Needs.....	190
Technology Needs.....	191

Chapter 5: U.S. Military Options and an Action Plan for NATO.....	193
Recognizing the Threat and Reaffirming Liberal Values.....	194
Perceptions and Misperceptions in a Baltic Net Assessment.....	197
Importance of Terrain.....	201
Drawing upon Experience.....	210
Appendix 1: Data Base of Forces.....	213
Belarus.....	213
Denmark.....	215
Estonia.....	216
Finland.....	217
Germany.....	219
Latvia.....	221
Lithuania.....	222
Norway.....	224
Poland.....	225
Russian Federation.....	229
Sweden.....	236
United Kingdom.....	238
United States.....	241
Appendix 2: Detailed Terrain Assessment of Strategic Regions and Operational Axes.....	243
The Initial Operational-Strategic Objective.....	245
The Probable Initial Main Operational Direction.....	246
Tactical Axes in Latgale.....	249
Initial Tactical Axis: Pskov – Rēzekne.....	249
Initial Tactical Axis: Moscow – Rēzekne.....	252
Initial Tactical Axis: Minsk – Daugavpils.....	255
Subsequent Tactical Axis: Rēzekne – Rīga.....	257
The Probable Subsequent Main Operational Direction.....	263

Operational-Strategic Regions of Estonia.....	273
Tallinn.....	273
Saaremaa.....	275
Other Operational Directions in the Baltic States.....	285
The Narva – Tallinn Operational Direction.....	285
The Pskov – Riga Operational Direction.....	288
The Daugavpils – Riga Operational Direction.....	309
The Vilnius – Kaunas Axis and the Suwalki Gap.....	329
Strategic Offensive War-Termination Operation.....	331
The Western (Vistula) Arm of Encirclement.....	333
The Eastern (Bug) Arm of Encirclement.....	350
The Iron Triangle – Holding Warsaw Hostage.....	361
A Preliminary Operational-Strategic Assessment.....	364
The Russian Invasion of Poland in 1920.....	365
Russian Air Operations.....	371

The Baltic Security Net Assessment. Introduction

The wars of territorial aggrandizement conducted by the Putin administration against Georgia and Ukraine were a consequence of their respective decisions to enhance cooperation with the European Union and NATO. Russian aggression has been an attempt to counter the political threat represented by modern political culture to Russia's feudalistic domestic political model and imperial approach to relations internationally.

Employing asymmetric tools to destabilise the international security system by challenging America's dominance as a military power, Vladimir Putin aims to restore Russia's ability to hold Europe hostage to any American attempt to restrain Russia's dominance of the Eurasian landmass. **The epicentre of Russia's effort is Estonia, Latvia, Lithuania and Poland.** The first three nations were part of the former Soviet Union, and the restoration of their control to Moscow would turn the Baltic Sea back into a Russian lake. As important a geostrategic shift as this would be, Poland is the true prize because, without it, NATO returns to being a maritime alliance with a beachhead, as opposed to a continental power with the ability to shift its resources via secure sea lanes. When viewed as a continental power, Poland constitutes a critical land bridge between the Atlantic NATO states and the eastern shores of the Baltic Sea. As a result, when seen from Moscow's perspective, **the four states constitute one integrated operational-strategic offensive challenge.** When perceived from the defender's point of view, the four states constitute a single area of operations linked by a narrow piece of land called the Suwałki Gap.

As an effect of the Schengen Treaty, European borders have been more open, enabling unconventional threats to rise using such options as uncontrolled migration, flow of weapons and terrorists, more opportunity for organized crime and possible movement of 'little green men'. All of these are part of a 'hybrid' combination of threats, which could be directed by the Kremlin against the Baltic States and Poland.

The military conflict in Ukraine constitutes a clarion call to politically modern Europeans and North Americans that “never again” statements alone are powerless to stop armed aggression. The situation is especially dangerous for the Baltic Region because of the fact that a body of water easily accessed by the armed forces of an inimical power lies at its centre. Thus, what in times of peace unites them commercially, in time of war would threaten to isolate them from one another.

In a sense, the geostrategic unity of the NATO coalition is linked with the military-geographic cohesion of the Baltic Region. The land domain is connected with the Suwałki Gap as the logistic link passing between Kaliningrad *Oblast* and Belarus. Should Russia attempt to close the Suwałki Gap between Kaliningrad and Belarus, NATO’s Forward Edge of the Battle Area (FEBA) would be extended from the Baltic Sea along the Kaliningrad-Polish border through Lithuania and along the entire Belarus border. It is important to note that, in the case of such aggression, not only the Suwałki Gap would be seized¹. Part of Polish territory toward the west – Warmia and Masuria *Voivodeship* – some 100 kilometres deep, would probably be occupied to ensure Russian troops’ freedom of manoeuvre, as well as to push NATO’s long-range weapon systems out to deny endangering Kaliningrad and military units’ assembly areas.

The effect of severing NATO’s south-to-north line of communication (LOC) from Poland to Lithuania to Latvia to Estonia could buy time for the Kremlin to seize the Baltic States and to rebuild its previous Soviet-era military infrastructure in preparation for defending the Russian conquest from NATO liberation. At the same time, NATO’s credibility as a security alliance would disappear should its publics refuse to shoulder the military burden and escalatory risks of a counter-offensive to liberate the Baltic States. The event would be particularly poignant for Poland, given its experience of isolation in 1939 and, ultimately, abandonment in 1945. It is important to note that Belarus is a member of the Russia-led Collective Security Treaty Organisation and it would be

¹ Read: Z. Sliwa, L. Elak, *The Suwalki Gap – NATO’S fragile hot spot*, The Scientific Quarterly No 2 Vol. 103, The War Studies University, Warsaw.

compelled to choose between being party to Moscow's aggression and incorporated into the so-called Russian Federation.

An article in the *Wall Street Journal* called the Suwalki Gap "the most vulnerable spot in the Western alliance"² in the event of hostilities in that

NATO forces would have to transit the 'Kaliningrad corridor,' a 110- to 150-km-wide stretch of territory between the Russian enclave and Belarus that could be subject to long-range artillery and flank attacks from both sides and would require a commitment of (scarce) NATO forces to secure.³

If it were to be closed by troops operating from Kaliningrad *Oblast* and Belarus, so that NATO was unable to reinforce NATO defenders to the north of the Polish border, it has been assessed by some, that the aggressors might be able to "reach the outskirts of the Estonian and/or Latvian capitals of Tallinn and Rīga, respectively, in 60 hours."⁴ According to U.S. planners, "the allies could have as little as 72 hours to reinforce the Suwałki Gap before Moscow would be able to effectively block access."⁵ The report 'Closing NATO's Baltic Gap', prepared by experienced retired military officers, concluded that Russian Anti-Access/Area Denial (A2/AD) capabilities might mean "Russia would be capable not just of sealing off the Baltic states in the 'bubble' that covers air, sea and land dimensions, but also of fiercely contesting other spaces of critical importance to military operations—in the electromagnetic spectrum, cyberspace, and even outer space (by using anti-satellite capabilities)."⁶ A similar opinion is shared by General (ret.) Sir Richard Barrons who estimates that Russia could be ready for action within 48

² J. Barnes, *Closing the Gap: NATO Moves to Protect Weak Link in Defenses Against Russia*, Wall Street Journal, New York 17 June 2016, <http://www.wsj.com/articles/closing-the-gap-nato-moves-to-protect-weak-link-in-defenses-against-russia-1466205268> (accessed: 12.12.2016).

³ D. A. Shlapak, M. W. Johnson, *Reinforcing Deterrence on NATO's Eastern Flank. Wargaming the Defence of the Baltics*, RAND Corporation, Santa Monica 2016, p. 4.

⁴ *Ibid.*, p. 1.

⁵ J. Barnes, *Closing the Gap: NATO Moves to Protect Weak Link in Defenses Against Russia*, *op. cit.*

⁶ W. Clark, J. Luik, E. Ramms, R. Shirreff, *Closing NATO's Baltic Gap*, International Centre for Defence and Security, Tallinn 2016, p. 13.

hours and “some land and control of airspace and territorial waters could be lost before NATO’s 28 member states had even agreed how to respond.”⁷

NATO finds itself playing catch-up because warnings by the Baltic States were ignored. While the battalions promised by the Warsaw Summit are a step in the right direction, they will still lack the air defense and fire-support resources to provide effective defense against a Russian attack. Hoping to deter Russian aggression by putting young soldiers in harm’s way, these battalions have no real firepower to back them up. This naiveté suggests, “Many people have lost sight of what a credible military force is and requires. They think a little posturing or a light force constitutes enough but it isn’t.”⁸ Worse still, Russia’s 2014 Military Doctrine describes NATO’s response to Russia’s aggression as a threat calling for additional military measures only adding to Russia’s ability to launch its aggression with little warning time for NATO political elites to agree on responses.

As much as any soldier would hope that the threat of war and, perhaps even nuclear war, would deter aggression, no scenario is to be excluded.⁹ Unfortunately, as observed by the International Centre for Defence and Security Studies, “experience has shown that Moscow is prepared to take very large risks, relying on brinkmanship and escalation.”¹⁰ The Kremlin’s New Generation Warfare concept articulated by Russian Chief of the General Staff Valery Gerasimov¹¹

⁷ D. Haynes, *Nato has no plan if Russia invades, warns ex-general*, *The Times*, September 19, 2016, <http://www.thetimes.co.uk/article/dh-nato-onxssnOrr> (accessed: 21.12.2016).

⁸ *Ibid.*

⁹ *Военная доктрина Российской Федерации*, Moscow 25 December 2014, Website of the: *Совет Безопасности Российской Федерации*, The Security Council of the Russian Federation, para 12a-d, <http://www.scrf.gov.ru/documents/18/129.html> (accessed: 14.12.2016).

¹⁰ H. Praks, *Hybrid or Not: Detering and Defeating Russia’s Ways of Warfare in the Baltics – the Case of Estonia*, Research Paper No 124, NATO Defence College Rome December 2015, p. 2.

¹¹ About General Valery **Gerasimov** concept read: В. Герасимов, *Ценность Науки в Предвидении. Новые вызовы требуют переосмыслить формы и способы ведения боевых действий*, Военно-промышленный курьер, No 8 (476), Moscow 27 February 2013, <http://www.vpk-news.ru/articles/14632> (accessed: 12.12.2016) and also in Tim Thomas, *Thinking Like A Russian Officer: Basic Factors And Contemporary Thinking On The Nature of War*, The Foreign Military Studies Office (FMSO), Fort Leavenworth April 2016, p. 16-19.

describes a wide range of conventional and unconventional tools that can be employed against the Baltic States and Poland. The initiatives of the Warsaw Summit, the United States' European Reassurance Initiative, the Transatlantic Capability Enhancement and Training Initiative, U.K.- France Combined Joint Expeditionary Force concept and the Visegrad Group decision to ensure a rotational presence must be considered to be no more than the necessary early steps in response to the aggressive posture taken up in all versions of post-Soviet military doctrine adopted by Moscow.¹²

Since deterrence is in the eye of the beholder, it is now imperative to perceive the military-technical requirements for offensive operations against the Baltic States and Poland as they are seen – and studied – by the Russian General Staff.

The research reflected in this net assessment includes not only an examination of opposing forces and Russian plans and practices, but also a detailed terrain assessment. In fact, the authors of this study were in south-eastern Estonia evaluating the terrain at nearly the same time as a Russian military team was doing the same. The ability to deter Russian aggression depends upon the ability to defeat the General Staff plan, and the ability to accomplish that requires understanding what Russia would have to accomplish if its aggression escalates to armed conflict. Making clear to the Kremlin that it cannot escape defeat by escalation is the only true path to avoiding war.

This volume is based not only on the theoretical considerations resulting from a multi-year interaction between its authors and the Baltic Defence College Staff, but also on numerous field studies by the authors in the Baltic States and Poland covering key terrain and critical infrastructure which are of fundamental importance for conducting operations within this theatre of strategic military action. The insights of the field trips are shared in annexes as terrain photos, and illustrate potential barriers on major avenues of approach and mobility corridors leading toward Rīga,

¹² *Warsaw Summit Communiqué*, Warsaw 09 July 2016, para. 78, http://www.nato.int/cps/en/natohq/official_texts_133169.htm (accessed: 21.12.2016)

Tallinn, Vilnius, the Suwałki Gap and deep into Poland along the Vistula and Bug Rivers as deep as Warsaw itself.

The operational analysis of the report has undergone careful examination during a computer-assisted exercise conducted jointly by the staff members of The Potomac Foundation and the Baltic Defence College in Tartu during the first part of 2016. The results were presented to officers from Baltic States and their insights have been incorporated into the report.

The combination of essential practical and theoretical chapters reinforced by visualization within annexes creates a valuable research tool for both civilians and military officers. While this net assessment is not predictive – nor does it pretend to be prescriptive – it constitutes an invaluable primer for those interested in security matters related to defence of the Baltic States and Poland. This 2017 edition is understood to be a “snapshot” of an ongoing process, and it is intended that this research will keep pace with this process and be reflected in subsequent editions.

DR. HAB. ZDZISLAW SLIWA

Dr. hab. Zdzislaw Sliwa[1][1] is the Dean of the Baltic Defense College in Tartu, Estonia. He is also professor of the University of Lower Silesia in Wroclaw.

CHAPTER I

Assessment at the Operational Level of Opposing Forces

Nicholas Myers with Edmund Bitinas

Control of the Baltic Sea posed a lucrative prize for regional powers for centuries, inspiring centuries of competition 1,500 kilometers deep from the Atlantic into the European continent. The predecessor of both the Russian and Ukrainian states — Rus — was founded by Swedish Vikings linking the Baltic and Black Sea basins along the rivers of Eastern Europe. In the Late Middle Ages, the Hanseatic League attempted to regulate trade through economic collusion. As rivalries escalated, polities resorted to force to retain their access to international routes. This dynamic resulted in a great power competition of the Early Modern Era, dominated by Sweden, the Polish-Lithuanian Commonwealth, and the Russian Empire. By the mid-eighteenth century, the Russian Empire had emerged triumphant, though it was still constrained by the British, French, and Germans. The area's primacy as a forum for geostrategic renegotiation somewhat faded in the nineteenth and the twentieth centuries; since the collapse of the Soviet Union, it has enjoyed a period of openness and peace among the democratic states that surround the Baltic Sea.

Today, a militarily resurgent Russia bent on reclaiming its status as a global great power has once again brought the region back into the strategic spotlight. Russia's neighbors around the Baltic Sea feel compelled to rework their security postures to discourage aggression and compensate for the precariously low force-to-space ratio. Russia, meanwhile, continues to augment its ability to project power along its western frontier. **The current military balance in the region, therefore, is characterized by an extraordinary dynamism— a fact that must be heeded by any observer.**

SUMMARY OF REGIONAL MILITARY ASSETS

The Baltic Sea is surrounded by nine independent countries¹³, six of which are NATO members, eight—members of the European Union, and only one—Russia— poses a major destabilizing risk to the region:

NATO & E.U. MEMBERS	NON-NATO E.U. MEMBERS	NON-NATO/ NON-E.U.
Denmark	Finland	Russia
Estonia	Sweden	
Germany		
Latvia		
Lithuania		
Poland		

Table 1. Baltic Countries

In addition to the nine Baltic Sea countries, four other states figure prominently in regional conflict scenarios: Belarus, Norway, the United Kingdom, and the United States. Of these, the latter three are NATO members, the U.K. will remain a member of the E.U. until at least 2019, and **only Belarus has the potential of serving as Russia’s ally in a Baltic regional conflict.**

The exclave of Kaliningrad Oblast (erstwhile Prussia) was unilaterally annexed by the Soviet Union from the Third Reich in 1945. After the Soviet Union split into independent states along the borders of the Soviet Socialist Republics¹⁴ in 1991, Kaliningrad *Oblast* (administratively belonging to the Russian Soviet Federal Socialist Republic during the Cold War) has remained part of the Russian Federation. It borders Lithuania to the north, Poland to the south, and the Baltic Sea to the west.

¹³ There were also nine Baltic Sea States during the Interwar years. The Soviet Union occupied and de facto annexed the nations of Estonia, Latvia, and Lithuania. The United States never recognized the legality of this annexation (and the Russian possession of Kaliningrad *Oblast* remains in a legal grey area, officially reported by the State Department, but never formally acknowledged), adding to the sensitivity of their status between 1945-1991.

¹⁴ With very few exceptions, the modern borders between these countries conform to the Soviet delineations between former Socialist Republics. However, they do not match the borders of the independent republics of the Interwar era. The importance of this issue will be addressed throughout the report.

Throughout the Soviet era, Kaliningrad Oblast was a major military center. Today it hosts roughly two-thirds of the Russian Baltic Fleet (at Baltiysk) and a large number of ground forces disproportionate for its territorial size and population¹⁵.

The security risk of Kaliningrad – a militarily significant location with a struggling economy¹⁶ and perceived vulnerability to Western attempts at ‘color revolution’– forms the crux of Russian operational thinking in the Baltic region.

STATES ON THE BALTIC SEA

1. Russian Federation

The aim of this report is to assess Russia’s **options for conducting a conventional military operation in the Baltic region** to achieve its objectives and/or deescalate the likely larger confrontation. This report does not attempt to evaluate the probability or likelihood of such an operation actually taking place.

While Russia has a strong interest in renegotiating the status quo in the Baltic region, it would prefer not to engage in a *conventional* military operation to do so. Instead, a conventional operation is perceived by the General Staff as insurance in case of failure of the Russian New Generation Warfare (NGW) tactics.¹⁷

The ongoing Russo-Ukrainian War offers a practical demonstration of a NGW campaign carried out with massing of forces (along the Ukrainian border) serving as a conventional backup. The operation upholds the Soviet era doctrinal tradition where each General Staff plan would have variants (during the Soviet era, a purely conventional option and an option involving the use of tactical nuclear weapons). Today, Russian

¹⁵ The number of ground forces in Kaliningrad *Oblast*, organized as the 11th Army Corps, comprises the same number of formations and equipment as that along the entire Finnish border, defending St. Petersburg.

¹⁶ Kaliningrad profile—Overview, BBC, March 12, 2015, available at <http://www.bbc.com/news/world-europe-18284828>

¹⁷ Berzins, Janis, “Russian New Generation Warfare: Implications for Europe,” European Leadership Network, October 14, 2014, available at http://www.europeanleadershipnetwork.org/russian-new-generation-warfare-implications-for-europe_2006.html

operational plans must be considered on an even wider range of variants to take into consideration that most of the elements of NGW do not involve overt military action.

The High Command of the contemporary European Theater of Strategic Military Action (TVD)¹⁸ would direct the military assets of the Russian Federation responsible for a military operation in the Baltic region. The command draws its forces principally from the Western Military District, though it can also draw upon forces from other Military Districts as a well. Recent military exercises have emphasized the capability of deploying these forces in concert across Russia to face a military contingency from any number of perceived threats.¹⁹

¹⁸ "Theater of Strategic Military Action" is a translation of the Russian term *Teatr Voennykh Deystviy* (Театр Военных действий). This paper will use the Russian acronym for the term. See *The Voroshilov Lectures: Materials from the General Staff Academy Volume I: Issues of Soviet Military Strategy*, ed. Ghulam Dastagir Wardak, Graham Hall Turbiville, Jr., et. al., National Defense University Press, Washington, DC 1989.

¹⁹ Special emphasis of late has been placed upon rapid deployment of peacekeeping forces and Special Forces. An example of the former: "Voennosluzhashchie v Samarskoy oblasti otrabotali osmotr transportnykh sredstv na mirotvorcheskom postu," *Russian Ministry of Defense*, 7 October 2017, http://xn--d1acaykgvdf0he1a.xn--90anlfbebar6i.xn--p1ai/news_page/country/more.htm?id=12145092@egNews (accessed: 7 November 2017). An example of the latter: "V dvukh regionakh Povolzh'ya nachalis' ucheniya spetsnaza," *Russian Ministry of Defense*, 4 October 2017, http://xn--d1acaykgvdf0he1a.xn--90anlfbebar6i.xn--p1ai/news_page/country/more.htm?id=12144583@egNews (accessed: 7 November 2017).



Figure 1. Russia's Military Districts and High Commands.

Unlike Western militaries organized in joint taskforces fighting their own operations to achieve a larger strategic end-state, the Russian High Commands draws assets from all arms of the military to fight a single operation fully committed to accomplishing the end-state. This reduces emphasis on preserving forces in circumstances of high-intensity threats. In the Russian military, the headquarters for the Ground Forces or Air-Space Defense Force do not command forces, but rather manage the vast administrative and logistical challenges of sustaining combat capabilities across the vast expanse of the Russian Federation. Operational planning is conducted by the Russian General Staff although, in some cases, it is directed to the main services staffs with the necessary technical expertise.²⁰ There is also some limited evidence that the regional High Commands are now charged in drafting operational plans.²¹

²⁰ For an overview of command structure evolution, see Suvorov, Victor, *Inside the Soviet Army*, Scribner, NY, 1983.

²¹ Witness the restriction of Russian strategic-operational exercises to units from singular military districts, e.g. the *Zapad-2017* deployments at <https://www.warvspeace.org/regular-maps/2017/10/13/zapad-2017-deployments>.

Thus, a Russian military operation in the Baltic region could have unfettered access to *all* forces allotted from these military districts and potentially more placed at the disposal of the High Command.

Getting an accurate picture of the Russian order of battle is essential to understanding its force generation capabilities. Nevertheless, in light of the Russian current military involvements in Ukraine, Syria and elsewhere, and until Russia succeeds in bringing the military to full Manning,²² any such order should be viewed more as a table of prepositioned equipment.



Figure 2. Russian Maneuver Units as of 2017. All assets formally available in each military district:²³

In addition to these units, a number of reserves are held by the General Staff as a reserve from the districts. This includes Russian Long Range Aviation, the Strategic Rocket Forces, and the Air Defense command

²² Park, Sungtae, "Russia Struggles to Reform its Military," *International Affairs Review*, George Washington University, October 14, 2012 available at <http://www.iar-gwu.org/node/438>

²³ 2016 data derived from numerous open sources including database of www.warfare.be and corroborated by the on-the-ground observations in Ukraine. Continued reorganization in 2016 added 1 motor-rifle division to the Western Military District, 2 motor-rifle divisions to the Southern Military District and 1 tank division to the Central Military District, though the impact of this change on other units is not yet fully understood.

responsible for the Moscow area. All of these are seen as possessing a strategic rather than operational role in the context of Russian warfighting and so are generally centrally delegated.

After the 2008 Georgian War, the Russian military transitioned from a division-based structure held over from the Soviet era to a lighter brigade-based force under Defense Minister Anatoliy Serdyukov.²⁴ However, since Putin’s return to the Presidency in 2012, the General

Type	Western MD	Central MD	Southern MD	Eastern MD
Motor Rifle	2 Divisions 5 Brigades 2 Regiment	1 Division 10 Brigades	3 Divisions 9 Brigades	1 Division 10 Brigades
Tank	1 Division 2 Brigades	1 Division 1 Brigade	None	1 Brigade
VDV (Airborne)	3 Divisions 1 Brigade	1 Brigade	1 Division 1 Brigade	2 Brigades
Spetsnaz	2 Brigades 1 Regiment	2 Brigades	2 Brigades	1 Brigade
Naval Infantry	1 Brigade	None	2 Brigades	2 Brigades
Artillery	4 Brigades	1 Division 4 Brigades	2 Brigades 3 Regiments	5 Brigades
Air Defense	4 Brigades 7 Regiments	4 Brigades 6 Regiments	2 Brigades 5 Regiments	3 Brigades 6 Regiments
Surface-to-Surface Missiles	3 Brigades	2 Brigades	1 Brigade	3 Brigades
Air Superiority	11 Squadrons	6 Squadrons	7 Squadrons	8 Squadrons
Strike Aircraft	5 Squadrons	3 Squadrons	10 Squadrons	7 Squadrons
Close Air Support	1 Squadron	None	8 Squadrons	4 Squadrons

Table 2. Assets by District

²⁴ Barabanov, Mikhail, “Changing the Force and Moving Forward After Georgia,” *Brothers Armed: Military Aspects of the Crisis in Ukraine*, ed. Colby Howard & Ruslan Pukhov, Center for Analysis of Strategies and Technologies, Moscow, 2014; 91-123.

Staff has reversed certain units back to divisions.²⁵ Some additional conversions back to divisions may yet be announced, though it seems extremely likely that a balance of divisions and brigades will continue to form the Russian order of battle.

Russian naval assets are arranged into four fleets and one flotilla (Northern Fleet, Pacific Fleet, Baltic Fleet, Black Sea Fleet, and Caspian Flotilla). These too are mostly organized by military district: the Western Military District oversees the Northern and Baltic Fleets, the Southern Military District the Black Sea Fleet and Caspian Flotilla, and the Eastern Military District the Pacific Fleet. The Northern Fleet, the most powerful of these forces, recently became the overseer of Joint Strategic Command “North” responsible for the Arctic area of responsibility,²⁶ gaining independence from the Western Military District.

All Russian fleets are currently much smaller than their Soviet antecedents, but government investment restarted since 2004 and most of the assets dumped since the end of the Soviet Union had been barely functional as of 1991. The recent firing of a sophisticated cruise missile out of the Caspian Sea into Syria demonstrated both their enduring capability and increasing pursuit of Western-style precision weapons for maritime warfare.²⁷ Other Naval deployments, including the 2016 one of Russia’s only aircraft carrier, the *Admiral Kuznetsov*, demonstrated the ability to send the fleet to sea,²⁸ if not always with decisive combat capability.²⁹ More often, the Navy participates either in

²⁵ “Western Defense: Russia to form 3 new army divisions in 2016,” *RT*; January 12, 2016, <https://www.rt.com/news/328648-russia-new-army-divisions/> accessed May 9, 2016.

²⁶ “Russia’s Defense Ministry establishes Arctic Strategic Command,” *TASS*, 1 December 2014, <http://tass.com/russia/764428>.

²⁷ Kalibr Cruise Missile: Russia’s Winged Incinerator at Work,” *Sputnik*. 13 December 2015. <http://sputniknews.com/russia/20151213/1031684219/russia-kalibr-missile-video.html>

²⁸ “Russia’s Defense Ministry establishes Arctic Strategic Command,” *TASS*, 1 December 2014, <http://tass.com/russia/764428>.

²⁹ Nathan Hodges & Julian E. Barnes, “Russian Campaign in Syria Exposes Moscow’s Defense Gaps,” *Wall Street Journal*, 28 November 2016, <https://www.wsj.com/articles/russian-campaign-in-syria-exposes-moscows-defense-gaps-1480273941>. Accessed 8 November 2017. . Accessed 8 November 2017.

localized defense exercises³⁰ or diplomatic “show the flag” visits to foreign countries.³¹

The Northern, Baltic, and Black Sea Fleets are most pertinent to a Baltic Regional scenario. At the start of the 2014 Ukrainian crisis, Russian Baltic Fleet amphibious warfare vessels were transferred from the Baltic to the Black Sea,³² likely for the purpose of assisting in the event of a large-scale invasion of Ukraine that spring. *Zapad* Exercises suggest that it is plausible that this movement would be conducted in reverse in the midst of a crisis in the Baltic region. Though NATO intelligence would very soon detect such a redeployment, NATO would not be likely to attempt an intercept – especially in a time of crisis — in order to avoid escalation.

In the midst of a larger conflict in the Baltic region, the Northern and Baltic Fleets would effectively be fighting two separate operations.

The Baltic Fleet features principally minesweeping craft, amphibious assault craft, missile ships, hydrographic ships, and diesel submarines, only acquiring significant missile assets in late 2016.³³ One-third of the Baltic Fleet is based at Kronshtadt off the coast of St. Petersburg, including all fleet submarine assets in peacetime. The other two-thirds are based at Baltiysk, at the mouth of the Vistula Spit, the maritime access point to Kaliningrad. Baltiysk includes most of the missile ships

³⁰ A good example is the relatively limited range of Baltic Fleet activities in the context of the larger *Zapad-2017* strategic-operational exercise. “*Korvety Baltiyskogo flota unichtozhili podvodnuyu lodku uslovnogo protivnika v ramkakh ucheniya ‘Zapad-2017’*,” *Russian Ministry of Defense*, 17 September 2017, http://xn--d1acaykgvdf0he1a.xn--90anlfbebar6i.xn--p1ai/news_page/country/more.htm?id=12142592@egNews. Accessed 8 November 2017.

³¹ An example of this is the diplomatic voyage of three ships of the Pacific Fleet around the Western Pacific in the Autumn of 2017. “*Otryad korabley Tikhookeanskogo flota pribyl s delovym zakhodom v Bruney*,” *Russian Ministry of Defense*, 12 October 2017, http://xn--d1acaykgvdf0he1a.xn--90anlfbebar6i.xn--p1ai/news_page/country/more.htm?id=12145799@egNews. Accessed 8 November 2017.

³² A variety of exercises with the Baltic Fleet LST assets were conducted in the Black Sea throughout 2014 after the aggravation of the political situation in Kyiv. See the 102 BDK 58 *Kaliningrad* and 127 BDK 43 *Minsk* in “Foreign Warships on Bosphorus in 2014,” *Bosphorus Naval News*, <https://turkishnavy.net/foreign-warship-on-bosphorus/foreign-warship-on-bosphorus-in-2014/>. Accessed May 9, 2016.

³³ Aleksey Ramm, “*Rossiya usilivaet baltiyskuyu gruppirovku*,” *Izvestiya*, 26 October 2017, <https://iz.ru/news/640670>. Accessed 8 November 2017.

and amphibious craft (to accompany the naval infantry brigade based at Kaliningrad).³⁴

The Baltic Fleet's primary mission would be to extend a broader anti-access area denial (A2AD) campaign into the sea. It would likely use its assets to thwart bottleneck operations seeking to mine the Vistula Spit or Gulf of Finland.³⁵ The Baltic Sea is too shallow for nuclear submarines, restricting Russian undersea operations to diesel submarines. While winter conditions generally improve the prospects of an offensive ground operation out of Russia, winter can see the Gulfs of Finland and Bothnia freeze, which can dramatically reduce Russian options for breaking out into the broader sea, as well as restrict operations against Finland and Sweden. Winter conditions on the Baltic Sea also occasionally endanger the operational capabilities of the Baltic Fleet, though the Russian Navy has exercised to reduce this potential vulnerability.³⁶

The Northern Fleet, by contrast, poses a more serious strategic threat to NATO. In addition to being home to a majority of Russian ballistic missile submarines (SSBNs), the sea-based delivery option of strategic nuclear weapons; the Northern Fleet boasts Russia's only operational aircraft carrier³⁷ and multiple legacy and new cruisers, destroyers, and nuclear

³⁴ Technically, all Russian military assets in Kaliningrad Oblast fall administratively under the purview of the Baltic Fleet, including ground brigades and surface-to-surface missile brigades. This administrative decision reinforces conclusion that Russian military service hierarchies execute not the operational intention of those units, but rather facilitate the complicated nature of managing resources across a country as vast and particular as the Russian Federation.

³⁵ The Baltic Fleet has exercised use of anti-ship weapons more frequently relative to other fleets in 2017, including using an active-duty ship as OPFOR as opposed to the typical practice of creating an artificial target. "Korvet 'Stoykiy' otrazil uslovnuyu torpednuyu ataku v Baltiyskom more, primeniv kompleks 'Paket'," *Russian Ministry of Defense*, 24 October 2017, http://xn--d1acaykgvdf0he1a.xn--90anlfbebar6i.xn--p1ai/news_page/country/more.htm?id=12148210@egNews. Accessed 8 November 2017. A more typical surface warfare exercise is this in the Baltic Sea: "Korabli Chernomorskogo flota vypolnili raketnuyu strel'bu po nadvodnoy tseli," *Russian Ministry of District*, 30 October 2017, http://xn--d1acaykgvdf0he1a.xn--90anlfbebar6i.xn--p1ai/news_page/country/more.htm?id=12148887@egNews. Accessed 8 November 2017.

³⁶ "Ukhdshenie pogodnykh usloviy ne povliyalo na boegotovnost' Baltiyskogo flota," *Russian Ministry of Defense*, 30 October 2017, http://xn--d1acaykgvdf0he1a.xn--90anlfbebar6i.xn--p1ai/news_page/country/more.htm?id=12148889@egNews. Accessed 9 November 2017.

³⁷ This carrier, the *Admiral Kuznetsov*, however, has suffered serious problems in recent years and, after a deployment to the Mediterranean in late 2016, is being repaired for a period estimated to last three years. "Remont avianostsa 'Admiral Kuznetsov' prodlitsya okolo trekh

attack submarines. **As during the Cold War, the Northern Fleet would support the operational objective of creating logistical uncertainty in the North Atlantic Ocean, Norwegian Sea, and North Sea; while posing a strategic threat to the world with its boomers as an ultimate insurance against the destruction of Russia in the event of escalation to a larger war.** Russian submarines would inhibit NATO maritime operations in the North and Norwegian Seas by introducing uncertainty; cruise missiles and naval aviation from the remainder of the Northern Fleet would destroy any major NATO naval concentrations seeking to achieve sea control or counter Russian attempts to disrupt maritime traffic.

Despite mostly legacy Russian strength at sea³⁸ and a much improved Russian air force, **it is the Ground and Airborne Forces that would be the centerpiece of any Russian strategic offensive operation.** The ground objective would be determined with the intention of negotiating a cessation to a conflict under circumstances favorable to Russia's strategic aim (to that end, Russia would be willing to tolerate casualties among its naval and air forces that no Western military would contemplate).³⁹ Thus, **Russia's capability to deploy ground and airborne forces over the border is the critical instrument of its conventional force projection.**

Russia has sought to lighten units and make them more deployable by converting divisions to brigades. However, as has been evident throughout the Donbas War, the Russian military is yet to master the art of brigade deployment as coherent units.⁴⁰ Instead, it has principally relied upon the creation of ad-hoc units called "battalion tactical groups" (BTGs) to project force when deployed.⁴¹ These BTGs serve effectively as Russia's answer to NATO combined-arms tactics, — combining heavy indirect fire, heavy armor, and large concentrations of

let," RIA Novosti, 23 August 2017, https://ria.ru/defense_safety/20170823/1500908567.html. Accessed 9 November 2017.

³⁸ Recent Russian Naval modernization has focused mostly on the Black Sea Fleet though some modern cruisers and small patrol boats have entered the Northern and Baltic Fleets respectively.

³⁹ Cf. Suvorov.

⁴⁰ For example, in September 2016, the Russian Armed Forces exercised only 1 brigade tactical exercise as opposed to 11 battalion tactical sessions. In October 2017, this ratio was 2 brigade to 7 battalion. See the research at www.warvspeace.org.

⁴¹ Sutyagin, Igor, "Russian Forces in Ukraine," Royal United Services Institute, March 2015.

infantry. These forces are complemented by constant unmanned aerial vehicle (UAV) reconnaissance to direct fires and coordinate tactics within an operation.⁴²

BTGs address the most pressing problems and emphasize the most enduring strengths of the Russian military. Units are melded together to avoid public scrutiny of infantry number shortfalls documented by the international media.⁴³ These formations are covered by sophisticated air defense with the ability to call in heavy fires or armored counterattacks at key points. However, BTGs also introduce new structural burdens on the Russian military, particularly the requirement to concentrate a large number of non-conscript soldiers. A large-scale Russian propaganda effort is at work to increase the share of contractor (i.e. volunteer) soldiers within the military relative to conscripts. This has been driven three key initiatives: education in military affairs to increase prestige among civilians,⁴⁴ youth initiatives,⁴⁵ and overarching administrative

⁴² These UAV-based capabilities are practiced regularly in the Russian military, including within BTG training sessions. One typical example: “*V Krymu proshlo masshtabnoe takticheskoe uchenie s motorstrelkami obshchevoyskovogo sedineniya Chernomorskogo flota,*” Russian Ministry of Defense, 15 September 2017, http://xn--d1acaykgvdf0he1a.xn--90anlfbebar6i.xn--p1ai/news_page/country/more.htm?id=12142358@egNews. Accessed 9 November 2017.

⁴³ This trend is diminishing as an increasing number of brigades exercise to form BTGs exclusively from their own assets. Furthermore, three divisions now serve to equip the needs of BTGs deployed in eastern Ukraine, reducing the Russian demand for ad hoc BTGs. These divisions emerged from the centers built along the Russian border with Donbas to train units from many different formations to meld into new combat-capable units specialized for the war in Ukraine. Anton Zverev, “Exclusive: Russia building major military base near Ukrainian border,” Reuters, 9 September 2015. <http://www.reuters.com/article/us-ukraine-crisis-exclusive-idUSKCNOR924G20150909>. Accessed May 9, 2016.

⁴⁴ Most notably the “*Est’ takaya professiya – Rodinu zashchishchat’!*” initiative, literally translated as “There is a profession to defend the motherland!” Coverage of one such event in Kaliningrad: “*V Kaliningrade proshla informatsionno-agitatsionnaya aktsiya ‘Est’ takaya professiya – Rodinu zashchishchat’!*,” Russian Ministry of Defense, 5 November 2017, http://xn--d1acaykgvdf0he1a.xn--90anlfbebar6i.xn--p1ai/news_page/country/more.htm?id=12149635@egNews. Accessed 9 November 2017. The results have been greater professed respect for the military profession: “*V Kaliningradskoy oblasti znachitel’no vyros sredi molodezhi prestizh sluzhby v armii,*” Russian Ministry of Defense, 11 October 2017, http://xn--d1acaykgvdf0he1a.xn--90anlfbebar6i.xn--p1ai/news_page/country/more.htm?id=12145668@egNews. Accessed 9 November 2017.

⁴⁵ Especially *Yunarmiya*. “*Luchshie voennosluzhashchie Severnogo flota provedut uroki Muzhestva dlya strahklassnikov,*” Russian Ministry of Defense, 8 November 2017, http://xn--d1acaykgvdf0he1a.xn--90anlfbebar6i.xn--p1ai/news_page/country/more.htm?id=12149960@egNews. Accessed 9 November 2017.

entities⁴⁶ to drive recruitment⁴⁷ and even sympathy abroad.⁴⁸ This is complemented by an effort to continue memorialization of the Great Patriotic War, both within Russia,⁴⁹ in frozen conflict zones,⁵⁰ and around the larger world.⁵¹

During the confusion of the early phase of the war in the Donbas, Russia could generate approximately 30 BTGs. With now-regular exercises of battalion tactical groups in most Russian maneuver units and the creation of regular divisions responsible for sustaining the Russian war effort in eastern Ukraine, this number is likely now increasing. Nevertheless, it must be emphasized that the total number of operationally-deployable BTGs is fewer than the total number of battalions in the Russian order of battle.

The ability to assemble a force against any strategic direction has increasingly been tested in snap exercises in recent years.⁵² Until recently, the Russian forces adjacent to the Baltic were the most

⁴⁶ “V Moskve proshlo zasdanie Glavnogo shtaba Yunarmii,” *Russian Ministry of Defense*, 9 November 2017, http://xn--d1acaykgvdf0he1a.xn--90anlfbebar6i.xn--p1ai/news_page/country/more.htm?id=12150113@egNews. Accessed 9 November 2017.

⁴⁷ Now regularly reported by the Russian Ministry of Defense. A recent example in the Far East: “V voyska VVO napravleno bolee 8 tysyach chelovek,” *Russian Ministry of Defense*, 31 October 2017, http://xn--d1acaykgvdf0he1a.xn--90anlfbebar6i.xn--p1ai/news_page/country/more.htm?id=12148974@egNews. Accessed 9 November 2017.

⁴⁸ Recently, branches of *Yunarmiya* opened abroad, including these two examples in Serbia and Slovenia: “Otdeleniya ‘Yunarmii’ mogut byt’ otkrity v Belgrade I Lyublyane,” *Russian Ministry of Defense*, 19 October 2017, http://xn--d1acaykgvdf0he1a.xn--90anlfbebar6i.xn--p1ai/news_page/country/more.htm?id=12145668@egNews. Accessed 9 November 2017.

⁴⁹ This effort is spearheaded by *Bessmertny Polk* (“Immortal Regiment”), an organization that serves to link descendants of Allied soldiers from World War II and then organizes patriotic events sympathetic to Russian policy decisions: <http://moypolk.ru/>. Accessed 9 November 2017.

⁵⁰ As in this example from Abkhazia: “‘Bessmertny polk’ proydet v pyati gorodakh Abkhazii,” *Sputnik*, 29 September 2017, <http://sputnik-abkhazia.ru/Abkhazia/20170929/1021986914/bessmertnyj-polok-proidet-v-pyati-gorodax-abxazii.html>. Accessed 9 November 2017.

⁵¹ As in this example from Victory Day in Canada: “‘Bessmertny polk’ v Kanade. Toronto, 9 maya,” *Topwar*, 14 May 2015, <https://topwar.ru/74699-besmertnyy-polok-v-kanade-toronto-9-maya.html> with this video <https://www.youtube.com/watch?v=w7k5mO9MQnA>. Accessed 9 November 2017.

⁵² Phillip A. Petersen, Nicholas Myers, & Stephen Taft, “Russian Theater Exercises in the Far Eastern TVD, 2003-2014,” The Potomac Foundation, October 20, 2014.

antiquated of Russia's forces,⁵³ but this is now changing, especially in the air dimension.

From the onset of a conventional war scenario involving NATO and its partners (and assuming the use of Belarusian territory for the preparations for a fight), Russia would face **five potential fronts of conflict**:

1. **The Arctic High North**
2. **The broader front with Finland near St. Petersburg**
3. **The Baltic States**
4. **Kaliningrad Oblast**
5. **The Polish-Belarusian border**

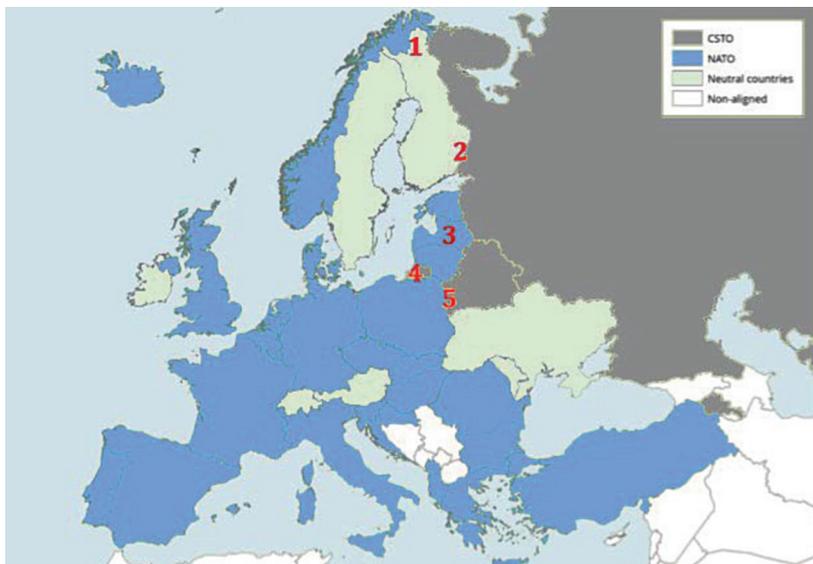


Figure 3. Five Potential Fronts

The General Staff would determine the operational needs of each of these five fronts as it allocates the BTGs available for deployment.

⁵³ Michael Kofman, "Russian Military Buildup in the West: Fact Versus Fiction," *Russia Matters*, 7 September 2017, <https://www.russiamatters.org/analysis/russian-military-buildup-west-fact-versus-fiction>. Accessed 9 November 2017.

Of the five fronts listed above, the second is the only one that seems generally unlikely to erupt into active conflict.

Additionally, Russia has a number of regions that require a constant military focus, even if not on the magnitude of quality of other forces. These locations are:

- Crimea
- Armenia
- Transnistria
- Abkhazia & South Ossetia
- Donbas
- North Caucasus
- Tajikistan
- Kyrgyzstan
- Russo-Chinese border

Therefore, in order to not seriously endanger Russian core interests, the assembly of 30 BTGs to fight NATO will likely rely on a general mobilization for a second echelon of a conventional fight. This conclusion is supported by the occasional Russian mobilization orders generated in anticipation of major Russian offensives in Ukraine since 2014. Again, the recent recruitment drive indicates a Russian desire to reduce this dependency, but it remains unclear to what extent this problem has been remedied for an anticipated conflict with NATO.

In addition these forces, the Russian Federation has also pooled a variety of paramilitaries into its National Guard, better known to Russians as *Rosgvardiya*. These forces will be necessary for rear area operations after a potential conventional victory in the Baltic States. The National Guard regularly exercises special rapid reaction task forces, generally formed by deploying a Special Forces core of troops to a local battalion, regiment, or brigade to respond to a potential threat. These Special Forces constitute Russia's elite maroon berets and may be involved in unconventional operations ongoing in the first phase of a conflict. In the two National Guard regions adjacent to the Baltic theater, Russia possesses two of these Special Forces units in addition to three operationally-capable regular brigades not counting forces reserved for an apocalyptic defense of Moscow.

Despite many constraints, Russia retains a capable military with a well-coordinated system of conducting operations against small opponents – even well-equipped small opponents with defensible terrain. This advantage is a factor of Russia’s prevailing size in mobilizing force and its continued capability to deploy forces over a long range, as well as the remarkable competence of the Russian General Staff in planning operations.

Another demonstrated source of strength is Russia’s recent deployment of sophisticated modern weaponry. This, as opposed to occasional declarations that Russia has “returned” to a power on par with that of the Soviet Union, is the true measure of contemporary Russian military strength.

2. Denmark

Denmark, the only founding NATO member on the Baltic Sea, has a small but efficient military organized principally around controlling the Danish Straits. Since World War II, Denmark has tended to work within the context of Scandinavia (as opposed to the whole of Europe) on security issues, keeping a clear focus on Baltic security.⁵⁴ After years of hiatus, its military has responded with resolve to the Russian threat to the Baltic region. In October 2017, Denmark proposed a 20% increase in defense spending in response to recent destabilizing Russian activities.⁵⁵ Denmark has emerged as **a leading provider of air support to the Baltic Air Policing mission in Estonia and Lithuania** despite having only 44 combat-capable aircraft.

The Danish Army is comprised of a single division of two brigades not fully manned but distributed on the island of Sjælland to protect the capital of Copenhagen, and on the southern portion of the Jutland mainland peninsula. These two brigades have constituted a significant share of the Allied Rapid Response Corps (ARRC) in the past few years,⁵⁶

⁵⁴ Hugh Faringdon, “The Northern Flank,” *Strategic Geography: NATO, the Warsaw Pact, and the Superpowers*, Routledge, 1989; pp. 284-285.

⁵⁵ Jacob Gronholt-Pedersen and Julie Astrid Thomsen, “Danish government proposes 20 percent defence budget hike to deter Russia,” *Reuters*, 11 October 2017, <https://uk.reuters.com/article/uk-denmark-military/danish-government-proposes-20-percent-defence-budget-hike-to-deter-russia-idUKKBN1CG1GI>. Accessed 9 November 2017.

⁵⁶ “Assigned Formations,” Allied Rapid Response Corps: <http://www.arcc.nato.int/about-us/formations>, accessed June 2, 2016.

though their deployment would essentially leave Denmark undefended but for reserves. Though armed with modern armored fighting vehicles, the Danish Army is almost completely devoid of artillery, currently possessing only 24 M109s and 20 mortars.⁵⁷ However, the Danish Army has initiated procurement of 18 self-propelled howitzers.

The Danish Navy includes modern air defense frigates⁵⁸ and mine countermeasures ships ideally suited for closing the Danish Straits. **In the event of a crisis in the Baltic region, closing the straits would be the central focus of Danish maritime operations.** Though capable, these components of the maritime force are limited in number, consisting of thirteen task elements plus nine patrol and coastal combatants.⁵⁹ As during the Soviet era, Denmark only has a few ships capable of firing anti-ship missiles, mainly *Harpoons*. Denmark also no longer has any submarines of its own.

Control of the Danish Straits has long been considered a high priority in Russian and Soviet military planning: during the Soviet era, finding a way to wrest control of the straits or the Kiel Canal through amphibious invasion out of Denmark offered a distinct possibility of swiftly suppressing the Benelux and forcing other European navies into localized defensive operations.⁶⁰ The accession of East Germany, Poland, and the Baltic States to NATO has greatly complicated this possibility, but has not eliminated it completely.

The Danish Air Force is based at Skrydstrup Air Base in the southern portion of the Jutland peninsula. It currently flies the F-16AM/BM, and in 2015 has renewed efforts to procure a next-generation aircraft.⁶¹ In May 2016, Denmark, already one of the nine Joint Strike Fighter partner nations, announced that it would procure the F-35A Joint Strike Fighter

⁵⁷ "Denmark," *The Military Balance*, 2016. International Institute of Security Studies; p. 89.

⁵⁸ Forsvaret For Danmark, available at <http://www2.forsvaret.dk/Pages/forside.aspx>, accessed on June 2, 2016.

⁵⁹ IISS, *ibid*, p. 89.

⁶⁰ Faringdon, Hugh, "The Northern Flank," *Strategic Geography: NATO, the Warsaw Pact, and the Superpowers*, Routledge, 1989; pp. 284-285.

⁶¹ Gerard O'Dwyer, "New Finn, Danish Leaders to Lead Fighter Picks," *DefenseNews*, June 8, 2015; available at <http://www.defensenews.com/story/defense/air-space/strike/2015/06/07/finland-denmark-fighter-replacement-government-f35-hornet-eurofighter-typhoon-gripen/28421615/>, accessed on June 2, 2016.

to replace its F-16s, hoping to begin fielding in 2020.⁶² These efforts are consistent with its growing commitment to stymie Russian aggression in the region, demonstrated by deployments in 2004, 2009, 2011, 2013, and 2014 (deploying shortly after the occupation of Crimea).⁶³

3. Estonia

Estonia, the northernmost of the Baltic States, is a country of Ugric-speaking people most closely related to the Finns. Its long coastline reflects the maritime influence upon Estonia throughout its history.

The Estonian capital of Tallinn was originally founded by the Danes and Germans as a trade center for the Hanseatic League in the High Middle Ages. By the second decade of the twentieth century, Estonia had been a part of the empires of Denmark, Teutonic Knights, Sweden, Poland, and Russia. In 1920, amidst the general confusion that befell the Russian frontier during the Civil War, Estonia successfully claimed its independence. Estonia, along with the other Baltic States, was absorbed into the Soviet Union in 1940 under the Molotov-Ribbentrop Pact and remained occupied until 1991. During the Soviet era, Estonia, as part of the Soviet Baltic Military District, hosted a sizable portion of the Baltic Fleet, including long-range naval aviation at Ämari Air Base. The last Russian sailors were evicted from its territory in 1995.⁶⁴

Today, the Estonian Navy includes five ships, one patrol ship and four mine countermeasures ships and 200 personnel.⁶⁵ **Estonia retains contingencies for mining its territorial waters using pre-distributed mines across the country, and involving merchant marine to deploy mines offshore in the event of Russian aggression.** A potential Finno-Estonian mining operation could bottleneck Russian maritime assets

⁶² Sydney J. Freedberg, Jr., "F-35 Wins Denmark Competition: Trounces Super Hornet, Eurofighter," *Breaking Defense*, May 12, 2016; accessed at <http://breakingdefense.com/2016/05/f-35-wins-denmark-competition-trounces-super-hornet-eurofighter/> on June 2, 2016

⁶³ "Wammen: Danske F-16 klar til Baltic Air Policing," *Forsvarsministeriet*, March 27, 2014, accessed at <http://www.fmn.dk/nyheder/Pages/Wammen-Danske-F-16-klar-til-Baltic-Air-Policing.aspx> on June 2, 2016

⁶⁴ Phillip A. Petersen, *Securing the Fruits of Victory: A History of the Potomac Foundation's Activities at the End of the Cold War, 1991-2006*, The Potomac Foundation, 2012.

⁶⁵ "Estonia," *The Military Balance, 2016*, International Institute of Security Studies, p. 91.

based in Kronshtadt in the Gulf of Finland. Nevertheless, Estonia has very little maritime combat capability beyond mine distribution.

Estonia has a relatively small professional land force augmented by conscription and a large reservist system. In recent military exercises involving reserves, it has successfully mobilized almost as many soldiers as Poland, despite having a considerably smaller population. It plans its largest exercise yet for the Spring of 2018 in Siil-2018 with almost 8,000 participants.⁶⁶ **The reservist system called the *Kaitseliit* is trained to provide local specialty support, effectively serving as indigenous engineering and counter-agitprop force serving specific communities. It regularly exercises with the Estonian regular force.**

The Estonian Army consists primarily of light infantry, though features some Finnish light armored fighting vehicles and a limited number of legacy Soviet equipment. In the event of war, Estonian land forces, arranged in two regular brigades, would be able to operate relatively freely. However, their main mission would be to **defend the approaches to the major population centers of Tallinn and Tartu as well as protecting or reentering Narva.**

Estonia's Army is now complemented by the Multinational Corps Northeast Battalion Estonia under British command with both British and French main battle tanks in addition to a Danish company. It became operational at the end of March 2017.⁶⁷

The Estonian Air Force, based at Ämari in the north of the country, is entirely dedicated to transportation, but **hosts half of the Baltic Air Policing provided by other NATO member states.**

⁶⁶ "V 2018 godu proydut krupneyshie voennye ucheniya s uchastiem rezervistov I dobrovol'tsev," *Stolitsa*, 4 October 2017, <http://stolitsa.ee/188091>. Accessed 9 November 2017.

⁶⁷ Roland Oliphant, "British troops arrive in Estonia as German spy chief warns of Russian troop build up," *The Telegraph*, 18 March 2017, <http://www.telegraph.co.uk/news/2017/03/18/british-troops-arrive-estonia-german-spy-chief-warns-russian/>. Accessed 9 November 2017.

4. Finland

Finland is the only country in the region that has actively fought the Soviet Union without having its capital subsequently occupied.⁶⁸

Throughout the Soviet era it engaged in a diplomatic balancing act retaining independence from the Soviet Union and staying out of NATO. The 1947 Treaty of Paris cemented the framework of Finnish neutrality, limiting the size of the military and prohibiting Finnish operation of bombers, submarines, or missiles (defensive missiles only being allowed in 1963 through a modification).⁶⁹ The treaty also obligated Finland to pay reparations to the Soviet Union⁷⁰ on top of formally ceding the territories of Petsamo (Pechenga), Karelia, and Vyborg.⁷¹ In 1948, a bilateral Finnish-Soviet Treaty of Friendship, Cooperation, and Mutual Assistance obligated Finland to resist the movement of forces allied with Germany,⁷² and formally proscribed Finland from NATO planning after 1955.⁷³

Despite this official neutrality, Finland has long maintained impactful security relationships with neighbors. Looking to alleviate gaps in each other's military capabilities Finland and Sweden formed a provisional pact in 2014.⁷⁴

In 2015⁷⁵, following the 2014 NATO Summit negotiations in Wales, Finland signed a memorandum of understanding with Sweden, and

⁶⁸ Viktor Suvorov, "Operation Détente," *Inside the Soviet Army*, Macmillan Publishing Co., Inc. 1982. 168-169.

⁶⁹ Jarvenpaa, Pauli, "Technology and Military Doctrine in the Future of Finnish Defense," *Nordic Security at the Turn of the Century*, ed. Ciro Elliott Zoppo, Greenwood Press, 1999, p. 102

⁷⁰ "Treaty of Peace with Finland Signed at Paris on February 10, 1947," *Treaty Series: Treaties and International Agreements Registered or Filed and Recorded with the Secretariat of the United Nations*, 1947.

⁷¹ "Finland-U.S.S.R. Boundary," *International Boundary Study*, Office of the Geographer, Bureau of Intelligence and Research, U.S. Department of State, 1967, p. 10.

⁷² "The Agreement of Friendship, Cooperation, and Mutual Assistance between The Union of Soviet Socialist Republics and The Republic of Finland" Text," http://heninen.net/sopimus/1948_e.htm accessed June 3, 2016.

⁷³ When West Germany joined the Alliance

⁷⁴ O'Dwyer, Gerard, "Finland, Sweden Eye Non-NATO Defense Partnership," *Defense News*, January 26, 2014; http://en.twwn.com/Military/81_57452.htm Accessed June 2, 2016.

⁷⁵ Christopher Harress, "Scared by Russia, Sweden and Finland Make War Pact," *International Business Times*, February 19, 2015; accessed at <http://www.ibtimes.com/scared-russia-sweden-finland-make-war-pact-1821906> on June 2, 2016.

NATO offering operational and logistical Host Nation Support for NATO operations out of Finnish or Swedish territory, effectively departing from neutrality as the cornerstone of its security policy.⁷⁶ In 2017, following Sweden's exercise with a number of NATO countries, Finland announced its own large-scale exercise involving the United States and Sweden open to other NATO members for 2020.⁷⁷

By maintaining a **reservist culture focused on territorial defense**, Finland achieved a true feat of independence despite a 1,200-km border with the Soviet Union. Even today, Finland retains a reserve of 354,000 personnel in a country with a total population of 5.5 million.⁷⁸

The Finnish Army is a well-oiled mobilization machine with a core of recently modernized Leopard tanks, Soviet and Swedish IFV's, and a large supply of domestically-produced APC's and artillery pieces. Finland's heavy formations are concentrated near the southern part of the Russian border opposite St. Petersburg — the main battlefield of the Winter and Continuation Wars. Light formations are scattered across the remainder of the country.

The Finnish Navy is based in Helsinki on the Gulf of Finland and in Turku, opposite the Åland Islands and controls access to the Gulf of Bothnia. It possesses a limited amphibious capability, but is **specialized at mine warfare with a primary mission of mining the Gulf of Finland in the event of a war to prevent amphibious assaults being launched against the capital. Finland also possesses anti-ship capability on its patrol ships.**

The Finnish Air Force is equipped with F/A-18 Hornets and is divided into three commands: Satakunta (West), Karelia (East), and Lapland (North), each with one squadron of 23 jets. Lack of geographic depth makes Finnish airfields vulnerable to Russian conventional SSMs based near St.

⁷⁶ "Finland and Sweden Sign Memorandum of Understanding with NATO," *SHAPE*, September 5, 2014, accessed at <http://www.shape.nato.int/finland-and-sweden-signing-a-memorandum-of-understanding-with-nato-for-operational-and-logistic-support> on June 2, 2016

⁷⁷ "Finland to Stage Massive War Games with Allies in 2020," *The Baltic Review*, 4 November 2017, <http://baltic-review.com/finland-to-stage-massive-war-games-with-allies-in-2020/>. Accessed 9 November 2017.

⁷⁸ "Finland," *The Military Balance, 2016*, published by the International Institute of Security Studies, p. 93.

Petersburg, as well as to air assets in the region and attached to the Northern Fleet.

5. Germany

Germany, a NATO member, had ruled much of the southern and eastern shore of the Baltic Sea at some point or another since the twelfth century following the Wendish Crusade. Militarily, Germany has exercised some form of hegemony on the region, bottling the Imperial Russian Navy in the Baltic Sea during World War I while winning overwhelming ground invasions in its final phase, as well as during the opening phases of World War II. German influence in the Baltic declined dramatically after the Second World War. Forced Soviet resettlement removed the German populations from Pomerania and East Prussia as well as the Baltic States. During the post-war era, West Germany retained control of the Kiel Canal and some military infrastructure along the Baltic coast to deploy diesel submarines into the sea. Nevertheless, during the post-war period, most German military efforts were directed toward the ground and air wars over its own territory.

After the dissolution of the Soviet Union, the German military was constrained for years by antiquated postwar restrictions on deployments both in law and in mentality that have denigrated its value to NATO's expeditions as well as to regional defense. **The German Army remained virtually absent from the military balance likely to affect a conflict in the Baltic region until quite recently.** Even today, the only German Army formation located on previously East German territory is the 41st Mechanized Infantry Brigade in Neubrandenburg, Mecklenburg-Vorpommern. Today, the political restrictions on the deployment of the German military abroad (covering even active defense of NATO in the event of a clear Article V) have the potential to hamper the ability of US and other Alliance assets from deploying out of German territory.⁷⁹ The recent deployment of a German *Panzerkompanie* as the basis for the MNC NE Battalion in Lithuania represents a critical start to German military engagement in the region.

⁷⁹ This problem is aggravated by the fact that the United States retains the majority of its military equipment in Europe in Soviet-era forward bases on German soil, exclusively in what formerly constituted West Germany.

After years of stagnation, the German Army has finally begun to restructure itself for deployment and operational capability in a conventional war.⁸⁰

This relative absence has been offset by its taking command of the Multinational Corps Northeast Battalion in Lithuania.⁸¹ Germany has also recently forged a command-and-control structure incorporating military units of multiple EU members, including France, the Netherlands, Czech Republic, and Romania.⁸² As yet, it is impossible to tell whether this will increase German power or serve to hamper its ability to politically commit to a deployment of force.

The German Air Force participated in Baltic Air Policing in 2005, 2008, 2009, 2011, 2012, 2014, and 2015, beginning deployments of 4th-generation Typhoons in the 2014 deployment.⁸³ In addition, one of Germany's four remaining wings is deployed in Mecklenburg-Vorpommern. This is complemented by German naval aviation in Schleswig-Holstein. German air assets feature state of the art electronic warfare capabilities that would likely play a critical role in a Baltic conflict scenario.

The German Navy could have the largest impact on a conflict in the Baltic region of all of Germany's services. With stealthy diesel submarines and fast-moving frigates, the German Navy remains ideally suited for Baltic Sea warfare. It also maintains a large mine countermeasures capability to impact access to the Baltic SLOCs. Unfortunately, this German Navy remains constrained by its peacetime stupor, demonstrated by the fact that a minor accident during an

⁸⁰ "Bundesver zametno uvelichil chislennost'," VPK, 21 August 2017, <https://vpk-news.ru/news/38470>. Accessed 9 November 2017.

⁸¹ "V batal'on NATO v Litve pribudut nemetskie tanki," RIA Novosti, 26 October 2016, <https://ria.ru/world/20161026/1480078621.html>. Accessed 9 November 2017.

⁸² Elisabeth Braw, "Germany is Quietly Building a European Army Under its Command," *Foreign Policy*, 22 May 2017, <http://foreignpolicy.com/2017/05/22/germany-is-quietly-building-a-european-army-under-its-command/>. Accessed 9 November 2017.

⁸³ Previously, the German Air Force had deployed the 3rd-generation F-4F Phantom on Baltic Air Policing missions.

ordinary maneuver meant that Germany at the moment of this writing none of its six submarines were deployable.⁸⁴

6. Latvia

Latvia, the middle Baltic State, represents a cultural amalgamation of all non-Lithuanian Baltic cultures first forged into a single identity around the turn of the 20th century. With its capital in Riga, the largest city in the Baltic States, Latvia today consists of four distinctive regions: Kurzeme, Latgale, Vidzeme, and Zemgale. Owing to the importance of the port city of Riga to the Soviet Union and its centrality to the infrastructure network of the Baltic States, Latvia saw a relatively high development of Soviet industrial capacity relative to Estonia and Lithuania. This, in turn, resulted in a disproportionately large Russian diaspora, a factor that may serve as a flash point for possible conflict between NATO and Russia.

Latvia has a land-oriented military consisting of a single professional brigade complemented by three National Guard brigades with distinct geographical areas of responsibility (AORs). The professional active-duty brigade's mission is to defend the final line around Riga, while the 1st National Guard Brigade defends Kurzeme (west), the 2nd defends Latgale (east), and the 3rd defends Vidzeme (north). To that end, these formations practice on their respective terrains and have relatively high knowledge of their AORs. However, their overarching design orientation as light infantry geared toward international deployments with NATO expeditions as opposed to the defense of their country in a high-intensity conventional war poses a challenge in the near-term. Despite this, Latvia has hosted an increasing number of large-scale NATO military exercises since 2014 to facilitate planning for these contingencies.⁸⁵ Other risk factors are a significant population of questionable loyalty within their borders, and **the geographic position that coincides with a potential major rail axis running from the main bases of the Russian 6th Army to Kaliningrad Oblast.**

⁸⁴ Jakub Palowski, "Niemcy bez sprawnych okrętów podwodnych," *Defence24.pl*, 21 October 2017, <http://www.defence24.pl/686016,niemcy-bez-sprawnych-okretow-podwodnych>. Accessed 9 November 2017.

⁸⁵ "NATO ezhergodno narashchivaet masshtab ucheniy 'Serebryanaya strela' v Latvii," *Sputnik*, 13 October 2017, <https://ru.sputniknewslv.com/Latvia/20171013/6161526/Bolee-3500-soldat-primut-uchastie-ucheniiah-Serebrjanaja-strela-Latvii.html>. Accessed 9 November 2017.

Latvia's Army is now complemented by a Multinational Corps Northeast Battalion under Canadian command⁸⁶ featuring Polish and Spanish main battle tanks⁸⁷ complemented by smaller contingents from Albania, Italy, and Slovenia.⁸⁸ It officially became operational in June 2017.⁸⁹

The Latvian Navy consists of small patrol and mine countermeasures components based in the ports of Liepaja and Ventspils along the Baltic Sea coast. They are not based in Riga owing to the fact that the control of the entire Gulf of Riga can be seized from the Estonian island of Saaremaa, as the German military demonstrated in World Wars I and II (and which might therefore be a primary Russian strategic target).

Like Estonia, the Latvian Air Force consists entirely of transport craft—both fixed-wing and rotary. Latvia also has a separate air defense formation of limited capability within the Air Force soon to be acquiring *Stingers*.⁹⁰ It is based at Lielvarde, near the center of the country. Though covered by Baltic Air Policing, Latvia does not host any aircraft from the program.

7. Lithuania

Unlike Estonia and Latvia, Lithuania has a centuries-long history of sovereignty in the region, ultimately merged into the Polish-Lithuanian Commonwealth in the sixteenth century. Lithuanian power had emerged as a challenge to the power of the German Teutonic Knights in the contemporary Baltic States and extended its power over what is today Belarus and Ukraine. This history has resulted in complicated Lithuanian relationships with Poland, Belarus, and Ukraine, at times facilitating and, at other times, undermining relations.

⁸⁶ "Kanada dovol'na tem, kak Latviya gotovitsya prinyat' batal'on NATO," *EurAsia Daily*, 30 October 2016, <https://eadaily.com/ru/news/2016/10/30/kanada-dovolna-tem-kak-latviya-gotovitsya-prinyat-batalon-nato>. Accessed 9 November 2017.

⁸⁷ "Over 1,000 soldiers to make up NATO's new international battalion in Latvia," *RT*, 12 January 2017, <https://www.rt.com/news/373512-latvia-nato-troops-spain/>. Accessed 9 November 2017.

⁸⁸ "Ispanskim soldatam v Pribaltike veleno ne priblizhat'sya k granitsam Rossii," *EurAsia Daily*, 28 May 2017, <https://eadaily.com/ru/news/2017/05/28/ispanskim-soldatam-v-pribaltike-veleno-ne-priblizhayutsya-k-granicam-rossii>. Accessed 9 November 2017.

⁸⁹ "Kanadskiy batal'on NATO v Latvii pristupil k neseniyu sluzhby," *Kremlin Press*, 21 June 2017, <http://kremlinpress.com/2017/06/21/kanadskiy-batalon-nato-v-latvii-pristupil-k-neseniyu-sluzhbi/>. Accessed 9 November 2017.

⁹⁰ "Latyshi teper' pri Stingerakh," *VPK*, 21 August 2017, <https://vpk-news.ru/news/38479>. Accessed 9 November 2017.

The Lithuanian military has long suffered from funding shortages and has only recently begun to be reborn into a force capable of standing up to Russian aggression. In 2018, defense spending will finally reach 2.06% of GDP in a stark reversal of its historic laxity.⁹¹

Lithuania's terrain protects it from incursions along much of the Belarusian border, but being wedged between the Russian ally Belarus and Kaliningrad Oblast means that it faces **three potential fronts: (1) Kaliningrad, (2) through the Vilnius gap in the otherwise generally difficult-to-maneuver Belarusian frontier territory, and (3) the northeast border with Latvia through which Russia might attempt a larger offensive.**

The Lithuanian Army now features three brigades, two of regulars and one of reserves, drawing upon manpower provided by the reintroduction of conscription in the country.⁹² The Lithuanian Army is complemented by the National Defense Voluntary Forces, which generally serve to erect barriers and control key terrain where the regular army cannot be active in the event of a conflict. The Army and National Defense Voluntary Forces increasingly exercise defenses of the country from invasion together, including in politically difficult situations in a bold manner for a NATO member-state.⁹³

The Multinational Corps Northeast Battalion in Lithuania is commanded by Germany and includes a German tank company⁹⁴ complemented by

⁹¹ "Minoborony Litvy: na voennye nuzhdy planiruetsya vydelyat' 2,06% ot VVP," *Baltnews*, 10 October 2017, http://baltnews.lt/vilnius_news/20171010/1017669174.html. Accessed 9 November 2017.

⁹² "Bnov' formiruemoy lyogkoy pekhotnoy brigade Aukštaitija vruchat Boevoe znamya," *Baltnews*, 23 March 2017, http://baltnews.lt/vilnius_news/20170323/1016946899.html. Accessed 9 November 2017.

⁹³ Vaydas Saldžyūnas, "Redkoe sobytie v Litve: vo vremya osobykh ucheniy proveryat, chto v sluchae krizisa budut delat' politiki," *Delfi*, 9 October 2017, <https://ru.delfi.lt/news/politics/redkoe-sobytie-v-litve-vo-vremya-osobykh-uchenij-proveryat-chto-v-sluchae-krizisa-budut-delat-politiki.d?id=75989523>. Accessed 9 November 2017.

⁹⁴ "Germany to send modern tanks to Russian border – Defense Ministry," *RT*, 28 October 2016, <https://www.rt.com/news/364477-germany-tanks-russian-border/>. Accessed 9 November 2017.

additional troops from Luxembourg, the Netherlands,⁹⁵ Norway,⁹⁶ Belgium, France, and Croatia.⁹⁷ The force became operational in early 2017.⁹⁸

The Lithuanian Navy is small, consisting of a patrol and mine countermeasures elements based at the single port city of Klaipeda at the mouth of the Curonian Lagoon.

The Lithuanian Air Force is, like those of the other Baltic States, a transport force principally based at Siauliai Air Base. It possesses an air defense arm at present armed only with MANPADs, but will soon be equipped with NASAMS from Norway.⁹⁹ Siauliai has long hosted a contingent of the Baltic Air Policing.

8. Poland

Poland, a Warsaw Pact member turned NATO member state, represents the most powerful European member of the Alliance likely to participate in a conflict in the Baltic region. Poland has long been an active agent of European history as one of the centers of Western Christianity and was the largest country in Europe during the seventeenth century. Constitutional problems and an inability to bridge the Catholic-Orthodox divide at the heart of its polity in the 1600s led to a precipitous decline in power through the eighteenth century, culminating in the partitions among the German, Austrian, and Russian Empires in the 1770s and 1790s.¹⁰⁰

⁹⁵ "V Litve nachalis' ucheniya gollandskikh voennykh," *Liga*, 18 September 2017, <http://news.liga.net/news/world/14822218-y-litve-nachalis-ucheniya-gollandskikh-voennykh.htm>. Accessed 9 November 2017.

⁹⁶ "Norway Sent 200 Soldiers to Russia Border," *The Nordic Page*, 20 June 2017, <https://www.tnp.no/norway/politics/norway-sent-200-soldiers-russia-border>. Accessed 9 November 2017.

⁹⁷ "NATO ob'qvalo, kakie strany zashchityat Pribaltiku ot vozmozhnoy agressii RF," *Baltnews*, 27 October 2016, <http://baltnews.lt/world/20161027/1016358733.html>. Accessed 9 November 2017.

⁹⁸ "German NATO battalion receives official welcome in Lithuania," *Deutsche Welle*, 7 February 2017, <http://www.dw.com/en/german-nato-battalion-receives-official-welcome-in-lithuania/a-37443784>. Accessed 9 November 2017.

⁹⁹ "Litwa: umowa na dostawę system obrony przeciwlotniczej NASAMS," *Defence24.pl*, 26 October 2017, <http://www.defence24.pl/688341,litwa-umowa-na-dostawe-systemu-obrony-przeciwlotniczej-nasams>. Accessed 9 November 2017.

¹⁰⁰ The Polish-Lithuanian Constitution of 1791, which predates that of the French Revolution, led Catherine the Great to launch Russia's first direct international (military) intervention in the

Though partitioned, Poland retained a strong political identity and the nation rose up under Napoleon's reign and then against Tsarist rule after Russia gained most of modern Polish territory as the spoils of its victory in the Napoleonic Wars. This led to large-scale suppression, but the calamity of the First World War saw the rebirth of the Polish state.

Faced with threats on all sides and no geographically-defined borders on west or east, Poland was again destroyed in the Second World War and moved further to the west under Soviet domination in 1945. The collapse of Soviet power allowed Poland to join the European community. At first, Russian strategists predicted that Poland would be without allies among its neighbors. However, Poland found a place within NATO and has been the leading advocate of using NATO's power to put an end to Russian manipulation of the politics of its neighbors in Europe.

The Polish Navy, trained during the Warsaw Pact years for amphibious assaults against Denmark, has turned toward protecting SLOCs inside the Baltic Sea from potential Russian interference, as well as to defense against potential Russian amphibious assaults against some of the vulnerable territories around the port of Gdansk and the mouth of the Vistula River. Using a combination of U.S. and Soviet surface combatants, the Polish Navy possesses a missile capability as well as five submarines. Despite the simple defensive nature of Polish maritime strategy,¹⁰¹ the Polish Minister of Defense announced a major restructuring of the Navy in September 2017, as yet leaving details of this undisclosed.¹⁰²

The Polish Air Force is still formed from Soviet-era MiG-29s and Su-22s, but has procured F-16s in recent years to operate a NATO-standard airframe. Poland has also expressed a clear intention to increase procurement of Western aircraft. Poland has participated in the Baltic Air Policing in 2006, 2008, 2010, 2012, 2014, and 2015.¹⁰³ The recent

political affairs of its neighbors. Norman Davies, *Europe: A History*, Oxford University Press, 1996, p. 719.

¹⁰¹ Jarosław Brysiewicz and Dariusz Gwizdała, *Poland's Strategic Concept for Maritime Security*, Biuro Bezpieczeństwa Narodowego, Gdynia, Poland, 2017, p. 38.

¹⁰² "Macierewicz: Marynarka Wojenna będzie musiała przybrać nowy kształt," *Defence24.pl*, 2 September 2017, <http://www.defence24.pl/655917,macierewicz-marynarka-wojenna-bedzie-musiala-przybrac-nowy-ksztalt>. Accessed 10 November 2017.

¹⁰³ To date, Poland has only deployed MiG-29s to its Baltic Air Policing missions.

acquisition of certain cruise missiles and other standoff weapons for the Air Force have influenced Russian decisions about how and whether to station forces inside the territory of Belarus. Poland also retains some Soviet-era air defense weapons, but these are mostly outdated and are finally being replaced with American Patriot missiles.¹⁰⁴

The Polish Army, now larger than the German Army, is arranged in three divisions that still feature a Soviet-style command structure, but a transition to a joint command system was announced in September 2017.¹⁰⁵ The Polish Army has seen massive improvements in armament and motivation over the past decades, developments it is continuing with vigor.¹⁰⁶ Two divisions of the army are still concentrated in Soviet-era bases near the Czech and German borders to support the old prerogative of deploying forces west. However, the third division is arrayed across Warmia-Mazury just south of the Kaliningrad border with additional heavy forces deployed near Warsaw and Lodz in the center of the country. Coastal defense forces are also active in Pomerania in the northwest. In 2017, a fourth division was announced to further enhance projection capabilities and afford a reserve able to defend Poland while deploying a potential expeditionary force.

One of the areas requiring urgent attention within the Polish Army today is its reserve system. Nominally quite large, the reserves have not been exercised in some years, leading the current government to prioritize reform of their organization and readiness. To that effect, the Polish Ministry of Defense announced the formation of a brand new National Guard in 2016. Details of this force are now starting to be announced as the Polish defense establishment works to correct this

¹⁰⁴ Jakub Palowski, "Trump i raketowe przyspieszenie polskiej armii [7 PUNKTÓW]," *Defence24.pl*, 6 July 2017, <http://www.defence24.pl/624636,trump-i-raketowe-przyspieszenie-polskiej-armii-7-punktow>. Accessed 10 November 2017.

¹⁰⁵ Rafał Lesiecki, "Królikowski: powołanie Dowództwa Sił Połączonych będzie oznaczało dwuwładzę," *Defence24.pl*, 3 September 2017, <http://www.defence24.pl/653783,krolikowski-powolanie-dowodztwa-sil-polaczonych-bedzie-oznaczalo-dwuwladze-wywiad>. Accessed 10 November 2017.

¹⁰⁶ "Wiceszef MON: konieczne przeorganizowanie armii," *Defence24.pl*, 2 September 2017, <http://www.defence24.pl/656024,wiceszef-mon-konieczne-przeorganizowanie-armii>. Accessed 10 November 2017.

problem.¹⁰⁷ Without a functioning National Guard, deploying significant regular forces outside Polish territory for the relief of the Baltic States or for the suppression of potential Russian threats in Kaliningrad or Belarus would be a precarious proposition. The standing up of a capable National Guard will dramatically improve the Polish capability of projecting military power to check potential Russian aggression.

Poland now hosts a multinational battalion with NATO Multinational Corps Northeast¹⁰⁸ as well as a rotating U.S. armored brigade combat team.¹⁰⁹ During *Zapad-2017*, a period recognized as one of heightened tension, the United States ensured it had two of these heavy brigades simultaneously deployed in Poland.¹¹⁰ Poland also hosts some of the largest NATO exercises in the regular exercise schedule, most recently *Drakon-17*.¹¹¹ All of these factors contribute to the fact that Poland is now the center of gravity of NATO's eastern front.

9. Sweden

During the seventeenth century, Sweden occupied a position of considerable power in the Baltic region. It colonized modern Finland, Estonia, Latvia, and considerable parts of Poland and Germany and aggressively competed with Poland and Russia for formal control of the region. Sweden's dominance waned with the defeat of its seventeenth-century invasion by Poland, followed by a disastrous outcome of the Great Northern War with Russia. Despite multiple attempts to establish political confederations with Denmark and Norway, Sweden was

¹⁰⁷ "5 tys. żołnierzy w Wojskach Obrony Terytorialnej," *Defence24.pl*, 12 September 2017, <http://www.defence24.pl/661500,5-tys-zolnierzy-w-wojskach-obrony-terytorialnej>. Accessed 10 November 2017.

¹⁰⁸ This battalion is under American command with a contingent from Romania. "US-led NATO battalion launched in Poland near tense border with Russia," *South China Morning Post*, 14 April 2017, <http://www.scmp.com/news/world/europe/article/2087559/us-led-nato-battalion-launched-poland-near-tense-border-russia>. Accessed 10 November 2017.

¹⁰⁹ Staff Sgt. Tamika Dillard, "The 'Year of Execution': U.S. Army Europe rotational forces in action," *U.S. Army*, 28 September 2017, https://www.army.mil/article/194486/the_year_of_execution_us_army_europe_rotational_forces_in_action. Accessed 10 November 2017.

¹¹⁰ Damien Sharkov, "U.S. Army Sends Two Tank Brigades to Europe Amid Russia Tensions," *Newsweek*, 13 September 2017, <http://www.newsweek.com/us-army-sends-two-tank-brigades-europe-amid-russia-tensions-664258>. Accessed 10 November 2017.

¹¹¹ Rafał Lesiecki, "Dworczyk o *Dragonie-17*: najistotniejsze przećwiczenie współdziałania z sojusznikami," *Defence24.pl*, <http://www.defence24.pl/666163,dworczyk-o-dragonie-17-najistotniejsze-przecwiczenie-wspoldzialania-z-sojusznikami>. Accessed 10 November 2017.

permanently sidelined to its current territory. Sweden has not fought in a war since the Napoleonic era, carefully maintaining its neutrality through balancing competing interests of Britain, Germany, and Russia over the past 200 years.

Alongside neutrality, Sweden kept its own independent – and expensive – arms industry, supporting indigenous fighting platforms into the 21st century with such items as the Strv-121 MBT and JAS-31 Gripen fighter-bomber. Over the decades since World War II, Sweden has participated in a number of informal alliance structures with Finland and the other Scandinavian countries. Despite continuous Soviet disregard for Swedish neutrality through submarine patrols and open questions of Gotland's position as Swedish sovereign territory, Sweden has never had a serious impetus for joining NATO. Consequently, Sweden maintained a large military throughout the Soviet era, including 500 aircraft and dozens of brigades capable of defending the main trunk of Swedish territory and the northern border.

Today, the Swedish Army is considerably smaller, with single regiments deployed near Stockholm, Gothenburg, and in the northern frontier region complemented with one airborne regiment and an armored regiment to the west. During wartime, these regiments are to be reformed into brigades operating under NATO combined arms standards. **In the event of a conflict of the Baltic region, this army would seek to protect Gotland, though it maintains some capacity for power projection across the entire region.**

The Swedish Navy retains considerable submarine, mine countermeasures, and amphibious capabilities. Sweden also features a naval missile capability of Denmark and Finland combined. In the recent years, its focus has been shifting to protecting against an increased number of Russian incursions near Swedish shores and away from pursuing patrols of the region. **In a regional conflict scenario, Russian attempts to use underhanded amphibious and maritime tactics to disable Swedish capability to resist Russian aggression or even provide logistical support would be of main concern.**

The Swedish Air Force today consists of 97 JAS-39 *Gripen*, — a significant drop from the 500 combat aircraft it boasted at the height of the Soviet

era. These are highly capable aircraft arranged in four squadrons based in the far north and south of the country.

NATO's ability to use Swedish air space to carry out air operations over the Baltic States from airfields further from Russia (i.e. beyond the range of Russian conventional SSMs like the Tochka and Iskander) is one of the decisive factors in a regional conflict scenario.

Despite its history of neutrality, Sweden has taken diplomatic pains in the years since the 2014 Ukraine crisis to demonstrate that this is no longer the case. This has included increasing the defense budget,¹¹² calling out Russian activities in the Baltic region,¹¹³ joining NATO individual NATO combat centers,¹¹⁴ and increasing operability with NATO members (and Finland) most notably at the Aurora-17 exercise.¹¹⁵

RELEVANT NON-BALTIC STATES

1. Belarus

Belarus has long found itself on the fringes of an imperial polity generally uninterested in specifically Belarusian affairs. The country, along with portions of Ukraine, is a part of the Orthodox Slavic community that found itself within the Catholic Polish-Lithuanian Commonwealth and therefore developed a separate identity from that in the Orthodox Russian metropole centered on Moscow-St. Petersburg. The Belarusian identity developed separately from the Ukrainian one in no small part due to the separation of the Pripjat Marshes and the generally less freely-maneuverable terrain of Belarus. Sitting atop the Smolensk Gate between Warsaw and Moscow, however, Belarus has

¹¹² Jakub Palowski, "Szwecja szykuje się do 'totalnej obrony'," *Defence24.pl*, 21 September 2017, <http://www.defence24.pl/666798,szwecja-szykuje-sie-do-totalnej-obrony-komentarz>. Accessed 10 November 2017.

¹¹³ Note the speech of the Deputy Chair of the Foreign Affairs Committee. Karin Enström, "Increased regional tensions in the Baltic Sea," *The Baltic Course*, 8 November 2017, http://www.baltic-course.com/eng/direct_speech/?doc=134851. Accessed 10 November 2017.

¹¹⁴ "Sweden to join NATO strategic comms centre: director," *Yahoo*, 30 September 2016, <https://www.yahoo.com/news/sweden-join-nato-strategic-comms-centre-director-174135908.html>. Accessed 10 November 2017.

¹¹⁵ "French and US troops head to Gothenburg as Sweden's biggest military drill in 20 years kicks off," *The Local*, 12 September 2017, <https://www.thelocal.se/20170912/french-and-us-troops-head-to-gothenburg-as-swedens-biggest-military-drill-in-20-years-kicks-off>. Accessed 10 November 2017.

not infrequently seen major military operations crashing across its frontiers, including those of Charles XII, Napoleon, and Hitler. During the Russian Civil War, Belarus briefly acquired some measure of independence, but was swiftly reabsorbed into the Soviet Union. Roughly a third of modern Belarusian territory was part of Poland in the Interwar Years, but was annexed into the Soviet Union at the conclusion of the Second World War.¹¹⁶

Belarus became formally independent in 1991, but remains a quasi-satellite state of Russia. Faced with the debilitating costs of the Chernobyl catastrophe in 1986,¹¹⁷ the Belarusian government avoided difficult decisions of post-communist transformation to hold order together. Today, Belarus is heavily dependent on Russian support to keep many Soviet-era institutions alive.¹¹⁸

Recognizing that a regional conflict may prove fatal to its fragile government, Belarus is concerned with avoiding a larger fight. President Aleksandr Lukashenko has emphasized this intent in the transition of the Belarusian conscripts away from the regular army and into various militias aimed more at motivating Belarusian patriotism than increasing military capability. **Unfortunately for Belarus, its geographic centrality to military considerations of regional strategies ensures that, if not Moscow, then Warsaw would demand Belarusian cooperation in the ongoing strategic competition in the Baltic region.**

The Belarusian Armed Forces were born out of the Soviet Belarusian Military District in 1991. Lacking a coastline, Belarus has no Navy. The Belarusian Ground Forces consist of eight regular brigades disproportionately oriented toward the Polish and Lithuanian borders. This, in part, is a natural consequence of the Soviet era military infrastructure positions; but is also congruent with the principal Belarusian security concern: namely, **defense from potential NATO**

¹¹⁶ After being briefly incorporated into the Soviet Union under the terms of the Molotov-Ribbentrop Pact, which even brought some parts of modern Poland into the Soviet Union.

¹¹⁷ Chernobyl itself is located in modern Ukraine.

¹¹⁸ Aleś Alachnovič, "How Russia's Subsidies Save the Belarusian Economy," *Belarus Digest*, 26 August 2015 <https://belarusdigest.com/story/how-russias-subsidies-save-the-belarusian-economy/>. Accessed 10 November 2017.

offensives launched to facilitate the defeat of a broader Russian operation in the Baltic region.

Despite a large number of brigades relative to its population compared to other European states, Belarus maintains very limited manning for a number of these brigades.¹¹⁹ One fully-manned brigade¹²⁰ are geared predominantly toward defense.

The Belarusian capability for power projection derives almost entirely from its two air assault formations¹²¹ and the 120th Guards Mechanized Brigade located in Minsk. These formations previously included Russian officers embedded in the Belarusian C2 structure — a practice that has reportedly been discontinued since the start of the war in Ukraine in 2014, but which still exercise regularly with Russian formations.¹²² Belarusian equipment today represents some of the best of the Soviet hardware of the 1980s, but has been poorly maintained and is of questionable reliability. Nevertheless, since the 2014 Ukraine crisis, some efforts at modernization have begun in the realms of missiles,¹²³ main battle tanks,¹²⁴ helicopters,¹²⁵ and heavy artillery,¹²⁶ though not yet the Air Force.

The Belarusian Air Force, which is based almost entirely in the Minsk-Hrodna-Brest triangle, is composed principally of Su-25 close air support (CAS) aircraft leftover from the Soviet Union. This is complemented by

¹¹⁹ Generally, most Belarusian brigades have only one active battalion's worth of manning.

¹²⁰ The 6th Guards Mechanized Brigade in Grodno.

¹²¹ Called "Mobile Brigades"

¹²² In 2017, these formations exercised with the Russian Airborne Troops in March (<http://souzveche.ru/news/35839/>), April (<http://eng.belta.by/society/view/about-1000-belarusian-russian-military-deployed-in-vitebsk-oblast-for-army-exercise-99890-2017/>), June (<http://tass.ru/armiya-i-opk/4312557>), September (*Zapad-2017*), and October (http://xn--d1acaykgvdf0he1a.xn--90anlfbear6i.xn--p1ai/news_page/country/more.htm?id=12143844@egNews).

¹²³ Siarhei Bohdan, "Does Belarus have its own missile programme?," *Belarus Digest*, 30 September 2016, <https://belarusdigest.com/story/does-belarus-have-its-own-missile-programme/>. Accessed 10 November 2017.

¹²⁴ "Belorusskiy tank T-72BME s usilennoy zashchitoy i teplovizorom," *VPK*, 22 May 2017, <https://vpk-news.ru/news/36860>. Accessed 10 November 2017.

¹²⁵ "Vertolety Rossii' podpisali kontrakt na remont Mi-8 i Mi-17 v Belorussii," *VPK*, 22 May 2017, <https://vpk-news.ru/news/36847>. Accessed 10 November 2017.

¹²⁶ Pavel Kovalev, "Dlinnaya ruka' Belarusi: 'Polonez' b'et na 300km," *Voenno-Politicheskoe Obozrenie*, 2 November 2017, <http://www.belvpo.com/ru/87904.html>. Accessed 10 November 2017.

MiG-29s based near Minsk. The Belarusian Air Force receives little training compared to its European peers and is of comparable readiness to that of Ukraine.

2. Norway

Norway, the only NATO member north of the Danish Straits, retains both a Nordic cultural outlook and a decidedly Atlantic-focused strategic perspective. Incorporated variously into Denmark and Sweden throughout modern history, independent Norway¹²⁷ has been concerned far more with security in the North Sea than on the Baltic Sea. A special emphasis has been made on safeguarding SLOCs with Atlantic trading partners and oil reserves in the North Sea. During the Cold War, Norway maintained an intense focus on the Soviet Northern Fleet based on the Kola Peninsula and vigilance in guarding against a Soviet attack in the High North¹²⁸ or a drive to cut off non-Continental NATO members from its partners across the sea, — in a manner similar to Germany’s attempt to forcibly divide Norway from Britain in 1940. In support of these objectives, Norway has equally developed all three services of its armed forces.

The Norwegian Army’s single mechanized brigade (Brigade Nord) is geared toward operations to defend the border with Russia, thousands of kilometers away from the primary Norwegian urban centers. It occasionally holds major readiness exercises on the Russian border to counteract crisis moments.¹²⁹ The main Norwegian metropolitan area, in turn, is defended only by a light infantry battalion.

The Norwegian Navy serves principally to probe Northern Fleet activities in the North, Norwegian, and Barents Seas; as well as to preserve SLOCs to Britain and the Norwegian islands of Svalbard.¹³⁰ The defense of

¹²⁷ Norway last became a separate country peacefully in 1905 with the dissolution of its union with Sweden; though it was subsequently occupied by the Germans during World War II.

¹²⁸ It was generally anticipated that the Soviet Union would attempt to take control of the Scandinavian High North in order to safeguard its SSBN bases near Murmansk from NATO artillery and short-range missile fire in addition to short-range aircraft and long-range missiles coming over the North Pole.

¹²⁹ Jakup Palowski, “Norwegia sprawdza gotowość bojową,” *Defence24.pl*, 24 October 2017, <http://www.defence24.pl/687367,norwegia-sprawdza-gotowosc-bojowa>. Accessed 10 November 2017.

¹³⁰At which Russia still maintains a limited mining community and which serves as a critical observation point for passing submarines.

Svalbard has become a higher priority¹³¹ recently as Russia has been quite public about its Arctic ambitions.¹³² Norway possesses several submarines, destroyers, and amphibious craft to facilitate these tasks. Norway also hosts MCPP-N,¹³³ a USMC equipment site, near Trondheim for rapid falling in of US amphibious forces to defend or retake the Norwegian High North. Since the start of 2017, the USMC has maintained longer-term deployments of manpower in addition to equipment.¹³⁴

The Norwegian Air Force consists of three squadrons of F-16AM/BMs complemented by a variety of maritime patrol and electronic warfare aircraft for monitoring the seas adjacent to Norway. As of this writing, Norway has just begun to receive fifth-generation F-35As.¹³⁵ Norwegian combat air support flies from the High North and the Trondheim area in the center of the country. Norway participated in Baltic Air Policing in 2005, 2007, and 2015.

3. United Kingdom

For centuries, the United Kingdom, one of NATO's founding members, retained an interest in preventing the Baltic Sea from being dominated by any single power. Historically, continental challengers have posed the greatest problem to British defense planning. Both world wars saw German domination of the Baltic Sea, while the Post-War period saw Soviet domination, with existential threats thereby emerging in the North and Norwegian Seas. This was exacerbated by the threats of the British SLOCs being cut off from the broader commonwealth; as well as

¹³¹ Kjetil Stormark, "Russland trente på invasjon av Svalbard," *Aldrimer*, 18 October 2017, <https://www.aldrimer.no/russland-trente-pa-invasjon-av-svalbard/>. Accessed 10 November 2017.

¹³² "Glava voennogo vedomstva Rossii general armii Sergey Shoygu prinyal uchastie v tseremonii nachala uchebnogo goda v Pansione vospitannits Minoborony," *Russian Ministry of Defense*, 1 September 2017, <http://ens.mil.ru/education/more.htm?id=12140549@egNews>. Accessed 10 November 2017.

¹³³ Marine Corps Prepositioning Program-Norway

¹³⁴ "Hundreds of U.S. Marines land in Norway, irking Russia," *Reuters*, 16 January 2017, <http://www.reuters.com/article/us-norway-usa-military/hundreds-of-u-s-marines-land-in-norway-irking-russia-idUSKBN1501CD>. Accessed 10 November 2017.

¹³⁵ Valerie Insinna, "Norway accepts its first three F-35s," *Defense News*, 6 November 2017, <https://www.defensenews.com/air/2017/11/06/norway-accepts-its-first-three-f-35s/>. Accessed 10 November 2017.

blocking the access of the United States and Canada from their respective resources and power.

Today, Russia is the only country posing a serious threat to British society. This has served as a strong motivator for Britain to uphold its NATO commitments with higher fidelity than other western European nations. With no other serious threats in the region, and with the drawdown of British contingencies in Iraq and Afghanistan, **Britain is capable of committing the majority of its armed services to operations in the Baltic Sea.**

Naval and air power have been central to the protection of the British homeland, and the British Army has traditionally been deemphasized. It is therefore not surprising that in an era of relatively high security, the British Army has contracted significantly, retaining two divisions, only one of which¹³⁶ has a serious capacity to fight a modern war. This division consists of three brigades: the 1st, 12th, and 20th Armored Infantry Brigades. These brigades furthermore have been shown in simulations to be incapable of putting up a prolonged fight against Russian Ground Forces.¹³⁷ The 20th Brigade represents the last active formation still deployed in Germany in the British Army on the Rhine, though it is being withdrawn back to England and will no longer be available on the European Continent.¹³⁸ While still in Germany, it makes a significant contribution to the NATO rapid response force. Britain's remaining Special Air Service (SAS) formations are capable of rapid aerial insertion into Europe to provide conventional military support. Though this brigade is returning to Britain, a heavy company has been contributed to the MNC NE Battalion in Estonia stood up in 2017.¹³⁹

¹³⁶ The 3rd Division

¹³⁷ Jennifer Newton, "British Army admits Russia could completely destroy the only remaining fighting unit in just an afternoon after years of defence cuts," *Daily Mail*, 22 January 2017, <http://www.dailymail.co.uk/news/article-4144772/British-Army-says-Russia-completely-destroy-unit.html>. Accessed 10 November 2017.

¹³⁸ Trystan Jones, "British Army troops leaving Germany after 70 years," *BBC*, 18 June 2015, <http://www.bbc.com/news/uk-england-33142613>. Accessed 10 November 2017.

¹³⁹ "British troops land in Estonia for NATO mission to deter Russia," *The Guardian*, 18 March 2017, <https://www.theguardian.com/uk-news/2017/mar/18/british-troops-land-in-estonia-for-nato-mission-to-deter-russia>. Accessed 10 November 2017.

The Royal Navy consists of a fair number of surface assets, albeit with insufficient manpower to operate all of them.¹⁴⁰ **In a Baltic conflict scenario, the British Navy would likely prioritize home defense over expeditionary deployments.** Therefore, while British destroyers, frigates, and mine countermeasures craft are sufficient to counter naval assaults directed at Britain itself, they will be of limited use in the Baltic during a crisis. Of special importance is the Royal Navy's own fleet of SSBNs serving as nuclear deterrent against direct attacks on the British homeland. **In the event of a crisis, the amphibious capability of the Royal Marines would likely be directed to assist in Norwegian as opposed to Baltic defense.**

The Royal Air Force contains a large number of combat aircraft, such as Tornados and Typhoons; and has plans to acquire F-35Bs. The RAF first participated in Baltic Air Policing in 2014 shortly after the Russian occupation of Crimea and has returned for rotations in both 2015 and 2016, flying Typhoons in the deployments. It also has taken up deployments of RAF assets to Estonia¹⁴¹ and Romania¹⁴² to practice defense of NATO allies from Russian attack across the Intermarium.

The British Air Force assets represent competent capabilities decisive in a Baltic conflict. However, their significant distance from the Baltic States has the potential to limit the number of generable sorties. A potential interference of neutral Swedish airspace in accessing the combat zone could also become another limiting factor. The possibility of deploying one or two British squadrons to Denmark in the event of a crisis would mediate the first constraint but would also put British aircraft within range of Russian *Iskander* SSMs.

¹⁴⁰ Con Coughlin, "Royal Navy a 'laughing stock' with three quarters of its warships out of action and 'struggling to protect British citizens'," *The Telegraph*, 14 September 2017, <http://www.telegraph.co.uk/news/2017/09/14/royal-navy-laughing-stock-three-quarters-warships-action-struggling/>. Accessed 10 November 2017.

¹⁴¹ "Chetyre istrebitelya VVS Velikobritanii pribyli na ucheniya v Estoniyu," *RIA Novosti*, 31 October 2017, <https://ria.ru/world/20171031/1507943416.html>. Accessed 10 November 2017.

¹⁴² "Velikobritaniya napravit v Rumyniyu 4 istrebitelya dlya patrulirovaniya Chyornogo morya," *Navkolo*, 8 November 2017, <http://navkolo.me/velikobritaniya-napravit-v-ruminiyu-4-istrebitelya-dlya-390688.html>. Accessed 10 November 2017.

4. United States

Since the end of the Second World War, the United States has assumed an active role in European security. This was a dramatic departure from 150 years of the American non-association tradition, but has since turned into a general imperative — uniting European military assets to defend against hegemonic aggression on the continent. Under this aegis, post-1945 Europe has become considerably less militaristic and grew dependent on the US military for its own preservation. **The United States, therefore, would almost certainly find itself immediately drawn into a conflict in the Baltic region to demonstrate its resolve in defending its allies and values in Europe.**

The Baltic region is a relatively new territory for US power. In the event of a conflict, it would likely be reached by US ground and air assets. Most favorably located US units are those based in Soviet-era bases in Germany. These assets are much reduced from their Soviet-era numbers, but recent events have driven the United States to begin deploying forces into the Baltic States and Poland through Operation Atlantic Resolve (OAR) including the deployment of a heavy brigade into Poland.

In a crisis situation, the US Army would likely activate its units in Europe and up to two divisions for combat in Europe. USAREUR assets in Europe consist of one airborne brigade,¹⁴³ one heavy armored brigade combat team,¹⁴⁴ one medium brigade equivalent,¹⁴⁵ one combat aviation formation,¹⁴⁶ OAR assets,¹⁴⁷ and some civilian-military relations units. In addition to this, the 4th Infantry Division in Colorado would likely be deployed, consisting of one heavy, one medium, and one light brigade, in addition to combat aviation assets. This could be complemented by the 82nd Airborne Division (a rapid response unit) or a brigade from the 3rd Infantry Division in Georgia. **While the 82nd Airborne Division could be deployed relatively rapidly from the continental**

¹⁴³ The 173rd Airborne Brigade Combat Team based in Vicenza, Italy.

¹⁴⁴ Based in multiple installations across western and northern Poland.

¹⁴⁵ The 2nd Armored Cavalry Regiment based in Bavaria, Germany.

¹⁴⁶ Based in Germany.

¹⁴⁷ One heavy company each in Estonia and Latvia and one medium company each in Lithuania and Poland.

United States (CONUS), the other units would require considerable efforts to move by sea and air and may not be able to arrive in time to affect the strategic environment in a Baltic crisis.

USAFE, the US Air Force in Europe, consists of forces in Germany and the United Kingdom with considerable numbers of airfields available for additional basing around Europe. These assets include F-15Cs, F-15Es, F-16s, and the ability to supply F-22s and A-10s brought in from CONUS. The principle problem these forces would face is the considerable distance between their home fields and the conflict theater. New base locations for these units (especially the F-16 formations) are currently being considered. Poland, where the armaments and parts for F-16s are already part of the national air force, offers an attractive option, as it is adjacent to the decisive area.

Additionally, USAFE controls a limited number of gravity tactical nuclear weapons at Ramstein Air Force Base in Germany that would comprise the US capacity for a tactical nuclear response to potential Russian aggression in the Baltic region.

USAF contributed to Baltic Air Policing in 2005 (F-16CJ), 2008 (F-15C), 2010 (F-15C), and 2014 (F-15C).

In the event of a Baltic crisis, the US Navy would most likely work to secure Transatlantic SLOCs, safeguarding the movement of ground and air assets into Europe (as opposed to actively participating in the conflict in the Baltic Sea itself). It will also operate US SSBNs to deliver a potential strategic nuclear response.

QUANTITATIVE WEAPON SYSTEMS¹⁴⁸

The combined land forces of the three Baltic States number approximately 19,100 officers and enlisted active-duty personnel in peacetime, with the ability to stand up approximately 72,150 soldiers if fully mobilized (including National Guard troops). Russian land forces number 771,000 active-duty, with an estimated 2,000,000 reservists (not including airborne or naval infantry personnel).

¹⁴⁸ All quantities are as of mid-2016.

Although the overall numbers overwhelmingly favor Russia, Russian military requirements cover a vast territory. Therefore, only a fraction of the active duty forces could be deployed in a Baltic conflict. Currently, a significant portion of Russian troop strength is tied down in eastern Ukraine and the Crimea. Russian forces are also required to secure its southern border and maintain security in the eastern military district. **However, even if Russia deploys only twenty percent of its active duty personnel, combined with activated reserve forces to provide logistical support and rear area security, its force will outnumber the total Baltic indigenous defense force by at least two, and up to four to one.**

The quantitative disparity is even more pronounced when weapon system quantities are considered. None of the three Baltic countries currently have main battle tanks in their inventories (although some purchases are planned for the near future, albeit in very small quantities, and the Latvian Army has three used for training). Some infantry forces are mechanized with armored personnel carriers, totaling between about 750 and 1000, depending upon which vehicles are included in the count.

Baltic air forces are essentially non-existent, being primarily a small number of fixed wing and rotary wing transport aircraft.

LOGISTICS AND SUSTAINABILITY

It is very unlikely that in their current condition, Baltic land armies would be able to stand up to a determined Russian threat, either individually or jointly. Since they have almost no ability to remain in the field for a protracted campaign as a traditional fighting force, sustainability over an extended campaign for these countries is not a significant issue. With minimal large caliber weapons and few armored and unarmored vehicles that are not likely to remain in the field for long, Baltic land force logistical requirements can be met with ease. With substantial reinforcements to the Baltic from NATO, however, sustainability over a protracted campaign does become a significant issue. Modern mechanized land forces can consume ammunition and fuel at an alarming rate. NATO mechanized land forces may be able to hold off a Russian threat for a significant time, **elevating the importance of sources of supply and supply routes.**

There are three possible methods to resupply NATO forces deployed to the Baltic States: 1) by sea via the Danish Straits and the Baltic Sea, 2) by air from other NATO nations, 3) by land via Poland and the area between Belarus and Kaliningrad, known as the Suwalki Gap (after the town of Suwalki in northeast Poland).

Initially, reinforcement and sustainment of major land forces in the Baltic States by sea appears to be the best option, since there are numerous ports and oceangoing vessels can carry a significant amount of cargo. However, in the event of hostilities breaking out, this option may also be the least viable. The shallow Baltic Sea with the average depth of only about 180 ft. (55 m) has its deepest portions on the Swedish side. This complicates significantly the detection of coastal submarines operating in these waters. As a result, once hostilities break out, cargo ships may be held at risk for a considerable period of time.

Russian Naval Aviation having a sufficiently long combat radius and adequate anti-ship missile capabilities would be able to add a second dimension to the denial of sea lines of communication to NATO. For instance, the Kh-35 anti-ship missile can be launched from a variety of platforms and has a range of 70nm (130km – and may be as much as 300km for the Kh-35U). It can be launched from the Su-24 Fencer, which has an unrefueled combat radius (with external fuel tanks) of 675nm.¹⁴⁹

Even an exceptionally well-coordinated effort by the major NATO maritime powers to clear and secure the Baltic Sea from Russian subsurface and air threats will take time.

Should hostilities break out after NATO reinforcements have been deployed to the region, this supply line will be tenuous at best, and more likely interdicted for at least the first few days of any campaign. If reinforcements have not yet been deployed into the region, this route will likely be denied by Russian subsurface and air power long enough for the Russian land forces to achieve at least some of their objectives.

If NATO land reinforcements are afloat in the Baltic when armed conflict commences, they will likely become primary targets of Russian

¹⁴⁹ For the purposes of comparison, the distance between Riga, Latvia and Moscow, Russia is about 455nm.

submarines and Naval Aviation, without regard to Russian casualties. Even if NATO conventional forces are capable of neutralizing or destroying the Russian conventional maritime threat, Russian forces can lay naval mines using commercial boats in sufficient quantity to close all of the ports in the eastern Baltic Sea for the duration of the conflict and beyond.

The second alternative supply line is an air bridge from Central and Western NATO countries into the Baltic States. The bulk expendables (e.g., large caliber ammunition and fuel) that a sufficiently large NATO mechanized land force would need to sustain a protracted campaign are difficult to move by air in sufficient quantities. Assuming US air transport assets are used to perform this aerial resupply operation, the primary aircraft performing this action would be either the C-17 or the C-130.

Although a fully loaded C-17 is capable of landing on a paved runway that is about 3,500 feet in length, this assumes that the pilot is able to hit the end of the runway with precision, and that weather has no impact. Wet runways, wind, and other safety considerations would likely restrict the C-17s to runways of at least 7,000 feet. The C-17 has three runway alternatives in Lithuania (Vilnius, Šiauliai and Kaunas – see Table 3) with sufficient length for landing a fully loaded C-17¹⁵⁰. Only one runway (in Rīga) is available in Latvia¹⁵¹. Estonia provides two additional runways of sufficient length, at Tallinn and at Pärnu.

¹⁵⁰ A fourth runway at Palanga, Lithuania is nearly long enough, and may be used if safety considerations for landing the C-17 are only minimally considered.

¹⁵¹ A second runway at Liepāja, Latvia is long enough, but not by much, when safety considerations for landing the C-17 are minimally considered.

	Location	Length of Main Runway	
		feet	meters
Estonia	Tallinn	10,000	3,050
	Parnu	8,100	2,470
	Kardla	4,900	1,490
	Tartu	4,500	1,370
	Kuressaare	4,200	1,280
Latvia	Riga	8,300	2,530
	Liepaja	6,500	1,980
	Ventspils	4,200	1,280
Lithuania	Siauliai	11,400	3,475
	Kaunas	8,400	2,560
	Vilnius	8,200	2,500
	Palanga	6,500	1,980

Table 3. Lengths of Key Baltic Runways

The C-130, which is capable of carrying only about twenty percent of the cargo of a C-17, and requires about 3,500 feet for safe landing. All of the smaller runways are available for landing the C-130¹⁵². Also, Russian ground and air-based air defenses may prevent or curtail this option.

The preferred method of resupply into the Baltic States from Central and Western NATO countries is, therefore, by land, preferably by rail.

However, the only available routes for land-based sustainment are through the ‘Suwałki Gap’ in northeast Poland, into southeastern Lithuania. This route is bordered by Kaliningrad, Russia in the northwest, and Belarus in the southeast. There are two main highways that run between Poland and Lithuania (Augustow-Suwałki-Marijampolė in the west and Augustow-Lazdijai-Alytus in the east). A single rail line of European gauge in Poland and Russian gauge in Lithuania¹⁵³ runs between the two highways. There are a few secondary and tertiary roads that cross the Polish-Lithuanian border between Belarus and Kaliningrad.

¹⁵² The C-130 can land safely within about 3,500 ft. (1,066 m), and can also use unprepared surfaces. Numerous highway areas are or could readily be made suitable for C-130 operations in all three Baltic countries.

¹⁵³ Part of the Lithuanian rail network is dual gauge, able to accommodate both European and Russian rolling stock and locomotives.

The terrain to the east of the three land routes is densely forested, has numerous small bodies of water and no major roads. As such, it offers poor mobility for armored forces, and should be easily defensible. The terrain to the west of these routes is much more open. Moreover, the point at which the western road and rail line cross is only about 25 miles (40 km) from the Kaliningrad-Lithuanian border, with a major highway providing a convenient route of advance for forces in Kaliningrad to interdict both of those routes. The eastern highway route leads from Poland to Vilnius in Lithuania, which is a key transportation hub for the entire southeastern portion of the Baltic States.

NATO RESUPPLY

The three possible methods of resupply into the Baltic States available for NATO forces - sea, air and land – each have their own limitations. The sea routes can be denied by sea mines, submarines or land-based airpower. The air routes have only a small number of runways available and are vulnerable to Russian air defenses. Two of the three available land routes can be easily interdicted from Kaliningrad. The third, eastern land route is close to the Belarus border, and could also be interdicted, should Belarus enter the war on the Russian side, or allow Russia free passage through its country.

MITIGATION OPTIONS

To reduce the logistics and resupply burden in the event of war in the Baltic States, a number of relatively low cost actions can be taken well in advance of a potential conflict. Large caliber ammunition and fuel could be stored in various areas around the Baltic States.¹⁵⁴ Both need to be dispersed so as to prevent the stocks from becoming an air or artillery target. Preloading some or all of the ammunition and fuel onto trailers for rapid movement into the field would further enhance this option.

Improvement of the eastern road link into Poland by enhancing the highway between Alytus, Lithuania and Kaunas (route 130 via Balbieriskis and Prienai) would provide a less vulnerable route from

¹⁵⁴ In early 2016, the U.S. Army/Europe moved about 5,000 tons of ammunition into Europe to support possible military operations. This ammunition was moved to storage locations near Miesau, Germany, which is near its western border. It is approximately 1,575 miles from there to Kaunas, Lithuania.

Poland into the center of Lithuania, and from there, northward into Latvia and Estonia. This would also shorten the distance of the eastern route between Augustow, Poland and Panevėžys, Lithuania from about 345 km through Vilnius, to about 275 km.

THE THREAT PERSPECTIVE

The resupply of invading forces from east of the Baltic States will initially depend upon major roads, of which there are quite few. The ports in the Baltic are in NATO's rear area, and most of the airfields are far from the Russian border. Eventually, rail resupply will be possible and will be the preferred method of sustaining the invading Russian force. However, the initial offensive campaign will be sustained by road.

In Estonia, there are only two main routes from Russia into the country.¹⁵⁵ The northern road and near-parallel rail route, between St. Petersburg and Tallinn, follow the coastline of the Gulf of Finland and pass by three towns, one of which – Narva – is on the Russian border. The southern route clips the southeast edge of Estonia and provides a direct route to Riga, Latvia. A rail line to Rīga is also available to the north of the road. Operations in this area also offer a flanking route, via Tartu, Estonia, toward the Estonian capital from the south.

The primary road routes in Latvia that may be used by the invading Russian forces are also limited. If Riga is an objective, either for purposes of knocking Latvia out of the war or for occupying the Latvian Army in its defense, the road and rail through southeast Estonia into northern Latvia would be the preferred method of resupply. A second road and rail route through Rezekne, Latvia, going almost directly west from Russia to Riga would also likely be used.

However, if establishing a land bridge to Kaliningrad is the initial goal of the invading force, then the crossroads at Rezneke and Daugavpils in southeastern Latvia become the key locations along the primary road and rail resupply routes from St. Petersburg and Pustoshka, Russia.

¹⁵⁵ Although it may be possible to cross Lake Peipus, which occupies most of the border between Russia and Estonia, with military ferry operations or even a pontoon bridge at its narrowest point, there are no good roads on either side of the lake to provide an adequate supply route.

Lithuania does not share a common border with Russia proper, only with Kaliningrad. Therefore, Russian forces invading Lithuania by land from Russia proper would have to be resupplied either through Latvia or Belarus. If we assume that the Russian objective is to establish a land corridor to Kaliningrad, then the best road route is from Daugavpils, Latvia through Kaunas, Lithuania. However, the rail route to Kaliningrad goes from Daugavpils, Latvia to Panevezys, Lithuania, paralleled by a secondary road, and from there to Kaliningrad via Taurege.

CHAPTER 2

Operational Assessment

Phillip A. Petersen with Phillip A. Karber and Nicholas Myers

Russian thinking on military doctrine differs considerably from that of Americans. It is not difficult to comprehend the reason for this fact when one considers that geography made the United States a naval power, whereas geography made Russia a continental (i.e., land) power. In addition to this geophysical reality, political culture has also played a fundamental role in shaping how military decision-making in the two countries creates predispositions to unique approaches to military-technical challenges. The historical experience of authoritarian governance in Russia, on the one hand, created no particular reservations to adopting a general staff approach to military planning. The American political system, on the other hand, has been from the American Revolution onward prejudiced against any approach to military planning that could pose a potential threat for political abuse that might be directed against the citizens of the Republic created by the American Founding Fathers. As a result of these discordant world-views, the approach to war and the process of planning for it are also divergent. The General Staff of the Russian Federation – as the “brain of the army”¹⁵⁶ – stands above the Main Staffs of the Services and, as a result, plans to fight a single war with each Service contributing to that single plan. The United States, on the other hand, prepares its forces and plans its military operations on the basis of Service organizations coordinated by a Joint Staff.

During the Soviet era, the United States Intelligence Community invested heavily in studying the Soviet Union and its military capabilities. Most of this investment was in order of battle work that measured relative U.S.-Soviet strength in terms of manpower, tanks, artillery, airplanes, nuclear warheads, and missile throw-weight. It was not until the mid-1970s that an intense debate arose over the meaning of these metrics. Even the famous “A-Team vs. B-Team” debate stimulated in 1974 – when Albert Wohlstetter accused the CIA of systematically underestimating Soviet missile deployment – missed the point of how the Soviets intended to use the forces they were building. It wasn’t until the end of the decade that the American Intelligence Community began

¹⁵⁶ This term was made popular by Russian Chief of the General Staff Boris M. Shaposhnikov, who wrote in the late 1920s a three-volume study on *The Brain of the Army*.

to move from “bean counting” to thinking about how the Russian General Staff planned to fight a war against the North Atlantic Treaty Organization (NATO).¹⁵⁷

At the end of the 1970s and the beginning of the 1980s a synergism was created by a young group of analysts from the Royal Military Academy at Sandhurst¹⁵⁸ and an inter-service and inter-agency team of Pentagon intelligence analysts¹⁵⁹ brought together under the banner of “public diplomacy” by General Richard Stillwell, U.S. Deputy Undersecretary of Defense for Policy.¹⁶⁰ Drawing upon this “new thinking,” military officers such as the British General Sir Nigel Bagnall and the American General Bernie Rogers, as well as civilian institutions such as the European-American Workshop organized by Wohlstetter and the German specialist Uwe Nerlich and funded by Andy Marshall of the Pentagon’s Office of Net Assessment, learned to defeat not Soviet arms but Soviet plans.¹⁶¹ Defeating the plan meant avoiding the war, and this is the lesson to be learned from history regarding securing the fruits of victory in the Cold War.¹⁶²

Unfortunately, the West has allowed its expertise in Russian military affairs to dissipate, and the process of reconstituting it will require careful study to avoid the mistakes of the past. In this regard, understanding the terms used by Russian military planners is a prerequisite to understanding Russian military doctrine and operational plans, as well as the exercises conducted to prepare the staff and forces to execute said plans.

To understand how the Russian Armed Forces fight one must look at the way the Russian General Staff conceptualizes war planning from the development of military power to the application of that power. It is through this

¹⁵⁷ See Gordon S. Barrass, *The Great Cold War: A Journey Through the Hall of Mirrors*, Stanford: Stanford University Press, 2009, pp. 213-216.

¹⁵⁸ Christopher Donnelly first among them; see Barrass, p. 270.

¹⁵⁹ John Clark and Reina Pennington from Air Force Intelligence; John G. Hines and Phillip A. Petersen from DIA; Theodore Neeley and Wayne Wright from the Office of Naval Intelligence, Notra Trulock and Charles Prichard from the National Security Agency; and Graham Turbiville from Army Intelligence. Barrass, p. 268.

¹⁶⁰ Barrass, p. 268.

¹⁶¹ An approach strongly encouraged by Sun Tzu. See R.L. Wing, *The Art Of Strategy: A New Translation of Sun Tzu’s Classic The Art of War*, New York: Doubleday, 1988, p. 45.

¹⁶² The seething resentment towards the United States for “having declared itself the winner of the Cold War” was evident during Vladimir Putin’s three-hour performance at the 2014 Valdai conference in Sochi, where he offered the West a choice between ceding Ukraine and whatever other parts of Eurasia in which the Kremlin claims dominion or “a whole set of violent conflicts.” “Putinoia on full display: The Russian leader lays out a menacing choice for the West,” *The Washington Post*, October 28, 2014, p. A14.

intellectual construct of military theory by which the Russian General Staff creates a rational structure to the process of preparing for and conducting warfare.¹⁶³

Definitions

The conceptual framework for the development and application of military power (See Figure 4) allows the Russians to be precise in their discussions of force employment in any conflict and, in fact, has a clarifying cognitive effect upon Russian decision-makers. In developing a framework that allows for the application of a range of means to a range of objectives, the Russians have institutionalized flexibility in force utilization at the operational scale. The Russians structure their military planning to seek victory at the lowest possible cost (risk). While the Russians have made no secret of the continuing theoretical elaboration of their military doctrine, the lack of appreciation persists among most Western strategic theorists concerning the effect of military doctrine and its components upon practical problem solving.

Military Doctrine

Russian military doctrine is a highly developed discipline that offers a sophisticated framework for the examination of military force employment and weapons systems development. It is formulated at the highest levels of political and military leadership, constituting element of political strategy concerned with specific principles, methods, and forms of preparing for and waging war.

¹⁶³ See, for example, Phillip A. Petersen and Bruce A. Wallace, "The Soviet Conceptual Framework for the Application of Military Power," *Contra: An NFAC Journal of Alternative Views*, August 1980, pp. 15-18 [Note that while this journal is classified Secret, the article itself is unclassified.]; Phillip A. Petersen, "The Soviet Conceptual Framework for the Application of Military Power," *Naval War College Review*, May-June 1981, pp. 15-24; Phillip A. Petersen, *The Soviet Conceptual Framework for the Development and Application of Military Power*, DDB-2610-36-81, Washington: Defense Intelligence Agency, June 1991

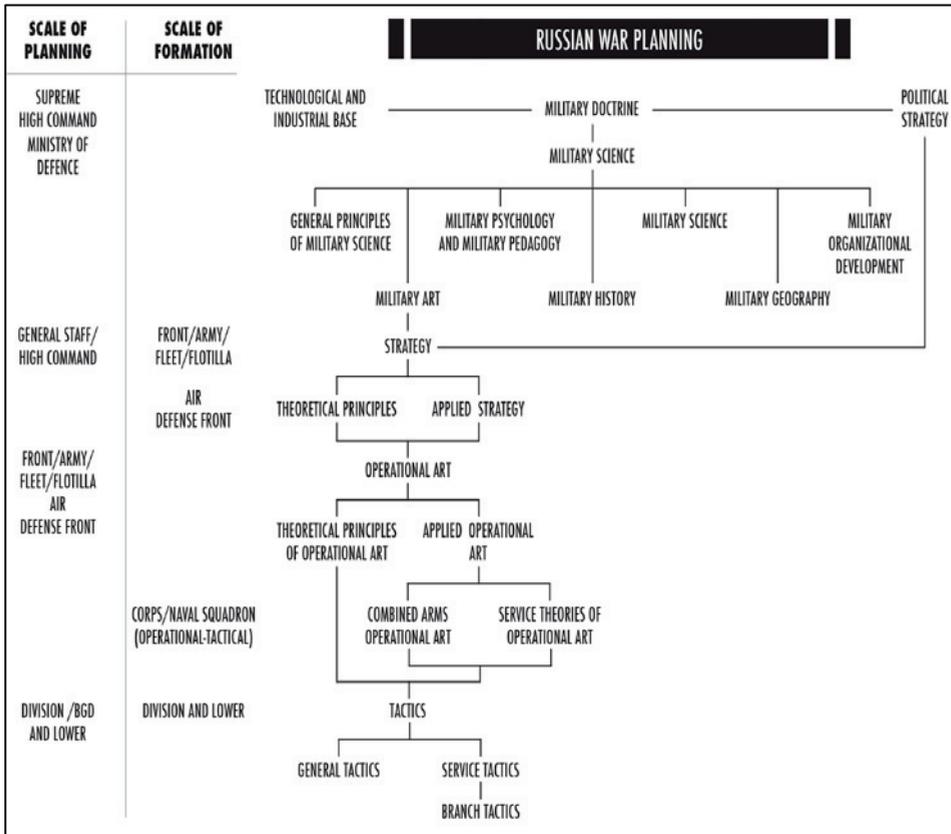


Figure 4. Russian War Planning

Military doctrine establishes the official classification of conflicts, and offers clear guidance for the military in preparing the armed forces for war. Thus, military doctrine is an expression of the political and military policy of the State, a directive of political strategy. It is distinguished from military science in that doctrine is a unified system of views and a guide to action elaborated and adopted by the State.

Military science, in turn, is “the aggregate of diverse materials and psychological phenomena of armed combat being studied and analyzed for the purpose of elaborating practical recommendations for the

achievement of victory in war.”¹⁶⁴ While military doctrine is based upon military science, there may be numerous hypotheses in the system of theories comprising military science which do not become part of doctrine for practical application and thus do not acquire the character of official State views on military matters.

The general theory of military science defines the relationships between relatively independent branches and disciplines within the military field. Classifying military knowledge into various elements of military science, the theory of military art is assessed to be the most important element of military science. **Military art** is the body of knowledge on the practical employment of forces in combat. “The theory of military art consists of strategy, operational art, and tactics, each of which represents a whole field of scientific knowledge.”¹⁶⁵ All three are, however, interrelated, interdependent, and supplement each other. Among the three, strategy plays the predominant role.

Strategy

“Strategy is a division of military art which investigates the principles of preparing for, and waging, war as a whole, and its campaigns.”¹⁶⁶ In its applied aspect, it is concerned with the immediate preparation of the country’s territory and combat theaters for war, specifically relating to the execution of strategic attack, strategic defense, and other types of military operations on a strategic scale. “Strategic operations are the basic means for achieving the political goals of war.”¹⁶⁷ Thus, in evaluating the strategic content of war, Russian military strategy considers that “war is a complex system of interrelated large simultaneous and successive strategic operations, including operations in a continental theater of strategic military action.”¹⁶⁸ Russian “military strategy is the same for all force components, and its principles are the

¹⁶⁴ S. N. Kozlov, *The Officer’s Handbook (Moscow: 1991)*, Washington, DC: U.S. Government Printing Office, p. 48.

¹⁶⁵ *Ibid.*, p. 57.

¹⁶⁶ *Ibid.*

¹⁶⁷ “Стратегия Военная [Military Strategy],” *Советская Военная Энциклопедия [Soviet Military Encyclopedia]*, Volume 7, Moscow: Voenizdat, 1979, p. 556.

¹⁶⁸ *Ibid.*, p. 564.

general ones for the conduct of war as a whole and for the conduct of strategic operations with consideration of concrete circumstances in various theaters of strategic military action.”¹⁶⁹ Although each operation has its own characteristic scope, the general goal of each strategic operation will be one of the partial military-political goals of the war.

Operational Art

Within the General Staff’s framework for the application of military power, the theory of military art provides an operational guide for conducting activities in support of higher-level requirements. Thus, “stemming from strategic requirements, operational art determines methods of preparing for and conducting operations to achieve strategic goals, and it gives the initial data for tactics.”¹⁷⁰ In essence, “operational art is the connecting link between strategy and tactics.”¹⁷¹ It covers the problems of preparing and conducting combined-arms and independent operations by operational-strategic, operational, and operational-tactical field forces of the services of the armed forces. As a determinant of the methods of preparing for, and the conduct of, operations to achieve strategic goals by major field forces, operational art is most often reflected in *front* and army operations.

Tactics

Tactics are the refined laws and principles of actual combat, most often used in conjunction with the operations by military forces at the level of division and lower. As such, “military tactics occupies a subordinate position with respect to operational art and strategy, acting in their interest, and serving to achieve the goals set for it by operational art.”¹⁷²

The conceptual framework of military art is applicable to the waging of war regardless of whether the weapons involved are nuclear or nonnuclear (either chemical or conventional. Combat activities are

¹⁶⁹ *Ibid.*, p. 565.

¹⁷⁰ “Оперативное Искусство [Operational Art],” *Dictionary of Basic Military Terms*, p. 142.

¹⁷¹ *Ibid.*

¹⁷² “Тактика (Военная) [Military Tactics],” *Dictionary of Basic Military Terms*, p. 218.

categorized as: 1) tactical; 2) operational; or 3) strategic. These terms, along with the terms operational-tactical and operational-strategic, cover the full spectrum of military objectives as well as the spectrum of weapons systems or means. Even the concept of surprise, which is considered to be one of the major principles of military art, consists of forms that exemplify the sophistication of this framework.

The Conceptual Framework Applied

Military geography is central to the General Staff's conceptual framework for the development and application of military power. Military geography is the branch of military science dealing with political, economic, natural, and military conditions in various countries and *Театрах Военных Действий (TVDs)* from the point of view of their effect on the preparation for, and conduct of, military operations. Although the translation of this concept into English has been a matter of debate,¹⁷³ here we will use Theater of Strategic Military Action

¹⁷³ I, myself, have gone through a progression of translations, from "theater of military operations" (TMO) to "theater of military action" (TMA) to finally settle upon "theater of strategic military action" (TSMA). Western specialists on the Soviet military, in attempting to explain the geographical concept of TVD (the Russian acronym for teatr voyennykh desvtviy) to non-specialists have offered at least several different translations. Theater of military operations (TMO) is one of the most widely used. John Hines and I came to a conclusion favoring the expression "theater of military action." Victor Suvorov (see IDR 12/1984) argued that TVD means "theatre of actions on a strategic scale," but he also argued for continued use of TVD to discourage Western analysts from distorting the concept to fit their own preconceptions. Also see LTC John G. Hines and Dr. Phillip A. Petersen, "The Changing Soviet System of Control for Theater War," in SIGNAL, December 1986, pp. 97-110.

"We essentially agree with Suvorov's translation but disagree with his advice. Because TVD does not mean anything to most Western readers, they are very likely to make incorrect assumptions about what the concept represents. We believe the most accurate and useful translation of the Soviet military term is, as Suvorov suggested, theatre of strategic military action (TSMA).

"In the 1983 Soviet Military Encyclopedic Dictionary and in a 1985 Soviet book devoted to clarifying and updating military terminology, the term military action (although plural in Russian, the English equivalent is singular) as used in TVD is defined as military action on a strategic scale. The same sources point out that smaller scale action at the operational and tactical levels is boyeviy deystviya, which literally means "combat action." The phrase, "military operations," in the widely used translation "theatre of military operations" (TMO), therefore is a mistranslation.

Moreover, TMO fails to communicate to the non-specialist what any Soviet military planner grasps immediately when he hears the expression TVD – that is a region identified for military

(TSMA). Military geography includes naval geography as an independent discipline within its boundaries.

The broadest concept in military geography is that of the theater of war (*Театр Войны* or *ТВ*). “A theater of war does not have strictly defined boundaries. Normally, it embraces one continent with its contiguous water areas or one ocean with its coasts, as well as the islands and archipelagoes located within its confines. In connection with this, the concept of a theater of war is sometimes used in the sense of the theater of strategic military action...”¹⁷⁴ However, “theaters of war can also be subdivided into theaters of strategic military action.”¹⁷⁵ (See Figure 5) While General Staff planners recognize the concept of a theater of war and note that it was a concept employed by the army of Tsarist Russia, they limit their own operational considerations to theaters of strategic military action.

The General Staff has defined the theater of strategic military action (TSMA) simply as that particular territory within whose limits a known part of the armed forces of the country or coalition conducts operations in wartime. Theaters of strategic military action may be continents or oceans (seas). Although at the end of the Soviet period strategic planners envisioned five continental theaters of strategic military action, the loss of the forward-deployed operational depth that occurred with the collapse of the Warsaw Pact and, subsequently the Soviet Union, resulted in a reduction from five to three. Thus, by the end of the 1990s, the General Staff envisioned three continental TSMA: 1) Western or European; 2) Southern; and 5) Eastern. (See Figure 2) In terms of maritime TSMA, four are still recognized: 1) Atlantic Ocean; 2) Pacific Ocean; 3) Indian Ocean; and 4) Arctic Ocean.¹⁷⁶ This left four intercontinental TSMA: 1) North American; 2) South American; 3)

action on a strategic scale.” John G. Hines and Phillip A. Petersen, “Changing the Soviet System of Control: focus on theatre warfare,” *International Defense Review*, No. 3/1986; reprinted in *Current News*, Friday, June 20, 1986.

¹⁷⁴ “Театр Войны, [Theater of War],” *Советская Военная Энциклопедия [Soviet Military Encyclopedia]*, Volume 8, Moscow: Voenizdat, 1980, p. 9.

¹⁷⁵ *Ibid.*

¹⁷⁶ “Театр Военных Действий [Theater of Military Action]” *Советская Военная Энциклопедия [Soviet Military Encyclopedia]*, Volume 8, Moscow: Voenizdat, 1980, pp. 8-9.

African; and 4) Australian. “According to their military-political and economic importance, TSMA are classified as main or secondary.”¹⁷⁷



Figure 5. Theaters of Strategic Military Action

Within each TSMA there are one or more strategic направление, which may be translated as direction, sector, or axis. A strategic direction consists of a wide strip of land or sea, and the airspace above, leading the armed forces of one warring party to the other’s most important administrative-political and industrial-economic centers. Strategic directions involve strategic operations, which are undertaken by combinations of *fronts*, fleets, or independent armies or flotillas. Thus, “a strategic direction usually permits operations by many strategic formations of various services.”¹⁷⁸

¹⁷⁷ “Театр Стратегических Военных Действий [theater of strategic military action],” Dictionary of Basic Military Terms, p. 220.

¹⁷⁸ “Стратегическое Направление [Strategic Direction],” Dictionary of Basic Military Terms, p. 214.

Strategic directions consist of one or more operational directions. An operational direction is a zone of terrain, water, or airspace, and sometimes a combination of these, within which strategic formations conduct their operations. Within the context of the TSMA in which they lie, operational directions may be internal or coastal. Figure 6 illustrates how the General Staff applied these concepts to possible war in Central Europe during the Soviet period.



Figure 6. Soviet TSMA boundaries in the European Theater of War

The System of Strategic Leadership

The Soviet General Staff developed a comprehensive theory of strategic leadership that corresponded to their highly structured view of military geography. A Defense Council (*Совет Обороны*) unified the military and civilian leadership to ensure centralized political direction of military efforts. This Defense Council controlled the armed forces through the Supreme High Command (SHC) (in Russian, *Верховное Главнокомандование* or *VGK*). The SHC was responsible for “direct

leadership of the armed forces both in peacetime and in war.”¹⁷⁹ It was the heart of what the General Staff considered to be their system of strategic leadership (See Figure 7). The two key components of this system were within the SHC itself. The first and “supreme organ of strategic military leadership” was the Headquarters, SHC (in Russian *Ставка ВГК*). The working organ of the SHC, the General Staff, was the second component. The so-called “intermediate organs of strategic leadership,” comprising the third element consisted either of formal High Commands of Forces (HCOF) or representatives of Headquarters (HQ) SHC and were intended to extend the operational control by the HQ SHC out to the forces actually engaged in combat. The fourth component was also a system of representatives, in this case an extension of the General Staff.¹⁸⁰ These SHC staff representatives ensured strategic coordination of planning down to the level of division and flotilla.

On December 10, 2013, Russian President Vladimir Putin signed an order establishing the National Defense Control Center (NDCC) which, according to Lt. General Mikhail Mizintsev, serves as the contemporary Supreme High Command (SHC).¹⁸¹

¹⁷⁹ Colonel M. P. Skirido, *The People, the Army, the Commander*, Moscow: 1970), as translated by U.S. Army Force, Soviet Military Thought Series, No. 14, Washington: GPO, p. 109.

¹⁸⁰ Although the officers themselves may have come from one of the Service Main Staffs.

¹⁸¹ “The closest analogy in the past in terms of functions and tasks was the Commander-in-Chief HQ in 1941-45, which centralized all controls of both the military machine and the economy of the nation in the interests of the war,” Lt. General Mikhail Mizintsev, the NDCC chief, told Lenta.ru in an interview.” See “Russia launches ‘wartime government’ HQ in major military upgrade,” *RT*, December 1, 2014, <https://www.rt.com/news/210307-russia-national-defence-center/>

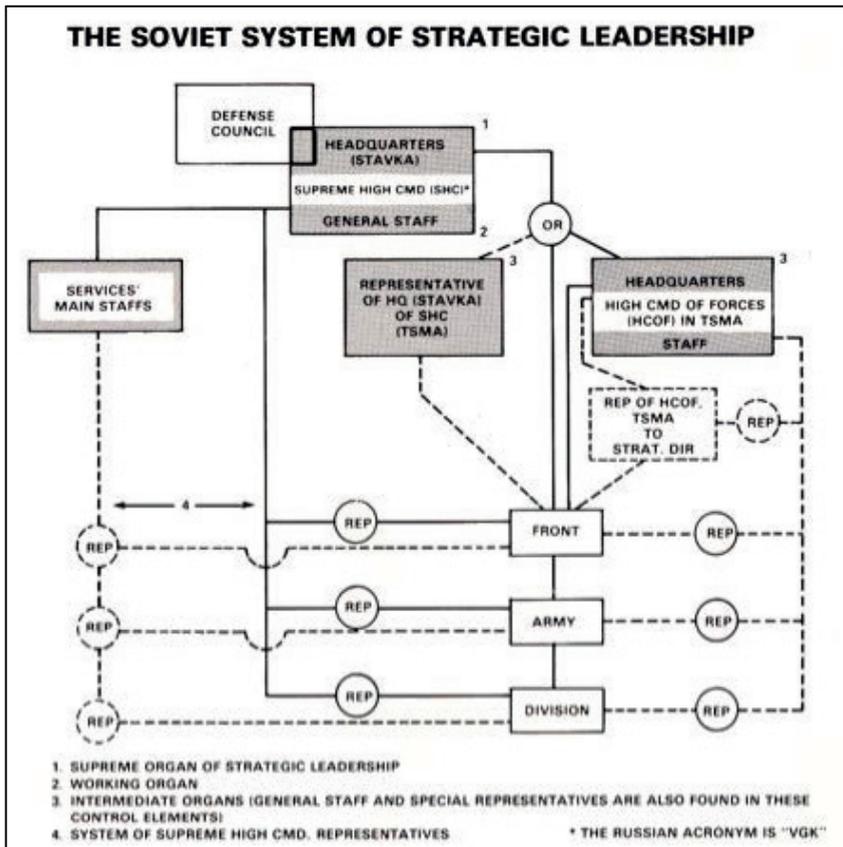


Figure 7. The Soviet System of Strategic Leadership

The NDCC, which coordinates 52 federal executive authorities and three state-owned defense corporations, is supported— as was the Soviet Supreme High Command (SHC) – by the General Staff as its strategic planning component.¹⁸² “The new center comprises the Control Center of Strategic Nuclear Forces (which oversees issues of use of weapons of mass destruction), the Combat Control Center (which analyses threats) and the Daily Activities Control Center (which deals with procurement issues).”¹⁸³ Manned by over “1,000 officers working on a rotating watch

¹⁸² “What is the Russia’s National Defense Control Center: How It Works?” Originally appeared at *Rusplt*, translated by Mikhail Alexandrovich for SouthFront, <https://southfront.org/russias-national-defense-control-center-works>, May 14, 2015

¹⁸³ “Russia’s National Defense Control Center officially takes up combat duty,” *TASS*, December 1, 2014, <http://rass.ru/en/russia/764480> See also, “Russia Opens New National Defense Control

system,” and employing a new domestically produced supercomputer said to be capable of processing “50 Lenin Libraries in a second,” the NDCC is claimed to be able to model crisis situations anywhere in the world. Russian Defense Minister Sergey Shoygu insists that the NDCC “will allow for continuous analysis of the situation, to develop ways to respond to changes promptly and to coordinate the undertakings of federal executive bodies in the defense sector.”

The “intermediate organs of strategic leadership” were a source of much confusion and controversy in the West during the last decades before the collapse of the Soviet Union. The major differences between an HCOF and an HQ SHC representative were the degree of their permanence and the size of their staffs. In fact, each High Command, just like the SHC, would be comprised of its own headquarters and staff. The HQ SHC representative, on the other hand, was more of a crisis manager. He would be more likely to have only the staff support of a relatively small operations group that could move quickly to solve immediate but more temporary problems. Such a representative, however, could have also drawn upon the staffs of *fronts* and fleets who temporarily were under his control. HQ SHC representatives could even have been dispatched to oversee wars of national liberation. For example, in the early 1980s, First Deputy Ministers of Defense Petrov and Sokolov served as representatives of the HQ SHC to “progressive” forces fighting in Ethiopia and Afghanistan. Both the Commander-in-Chief (CINC) of a HCOF and a representative of HQ SHC would have had the full authority of the HQ SHC and would probably themselves be members of the headquarters. During the final decade of the Soviet Union, CINC’s of HCOFs were assigned to command forces in four of the five peripheral continental TSMAs.

Given the loss of strategic depth in central Europe, the Soviet era roles of Military Districts as instruments of mobilization of second echelon armies and *fronts* for intermediate level strategic commands seemed inadequate, potentially confusing, and even inefficient. Chief of the

Center: Tech Savvy and Prompt,” *Military & Intelligence*, January 12, 2014, accessed at <http://sputniknews.com/military/20141201/1015358641.html>

General Staff Yuriy Baluyevskiy apparently floated the idea of creating Operational-Strategic Commands (OSC or *OSK*) during Baykal-2006, but “didn’t manage to break the resistance of district commanders who didn’t want to share their authority with *OSK* commanders.”¹⁸⁴ After some discussion, it was decided to exercise the operational subordination of all forces in a Military District to that Headquarters during *Zapad-2009*. The following year, the Chief of the Russian General Staff announced that “the correctness of the decision was confirmed by the recently completed ‘*Vostok-2010*’ operational-strategic exercise in the Far East.”¹⁸⁵ A July 6, 2010 decree signed by Russian President Dmitriy Medvedev established the OSKs by reducing the number of Military Districts to four and giving them operational command of the forces on their respective territories. (See Figure 8).



Figure 8. Russian Regional Military Commands

¹⁸⁴ “Will Genshtab and OSKs Replace the Glavkomaty?”, Russian Defense Policy, July 29, 2010, accessed at <https://russiandefpolicy.wordpress.com/tag/operational-strategic-command/>

¹⁸⁵ General Staff Chief Markarov’s Press Conference, July 14, 2010, accessed at <https://russiandefpolicy.wordpress.com/tag/operational-strategic-command/>

The fourth component of strategic military leadership was the extensive system of SHC staff representatives. Their primary function was to monitor the operational situation to ensure that the overall plans of the SHC were being respected. They also served as a direct conduit for communications between lower level units and both the General Staff and the Main Staffs of the five services. This information would have formed the basis for refining planning and, ultimately, changing support priorities throughout the forces. The staff representatives either were officers of the General Staff with general coordination responsibilities or were officers from the Main Staff of the services who assisted, on behalf of the General Staff, in specialized areas such as air, artillery, engineer and naval support. While neither the General Staff nor the Main Staffs of the services formally commanded any forces, this entire staff representative system constituted a shadow control system superimposed by SHC upon the formal organizational structure. The intent was to keep the armed forces focused on the SHC's strategic objectives rather than on more narrowly defined objectives of the services or of lower level commanders.

Discussions in Soviet military literature suggested that, when required, the CINC of an HCOF in a given TSMA would designate his own high level representative to oversee operations by groups of *fronts* on diverging strategic directions within the TSMA. These High Command representatives could be officers from the CINC's own military council, his chief of staff, chiefs of the major directorates within his staff or officers of similar responsibility and position. The use of such High Command representatives was standard practice in World War II, and only rarely were subordinate commanders called to their CINC's headquarters to receive instructions. The evidence from the Russian war in the Donbas suggests that the system of deployed representatives continues to be a useful tool to monitor the operational situation to ensure that the instructions of the SHC are being implemented.

Post-Soviet Operational-Strategic Planning and Exercises

Great military theoreticians, such as the Soviet Major General I. N. Vorobyov, identified the significant contributions of military exercises to the development of Soviet military theory. In the 1970s-1980s the Soviet Union military conducted a series of operational-strategic exercises¹⁸⁶ that culminated in *Zapad-1981*. This exercise was “unprecedented in terms of the number of servicemen and quantity of equipment. These maneuvers rehearsed an offensive by Soviet and allied troops in the event of a possible war against the NATO bloc.”¹⁸⁷

Throughout most of the 1980s, Soviet generals such as Marshall Nikolai Ogarkov worked to develop the table of organization to implement the strategic offensive operation rehearsed in *Zapad-1981*. This was achieved by shifting to self-propelled artillery and increasing the forward-deployed tubes by 50%. Most of the truck production had to be forward-deployed to keep the new artillery forces supplied with ammunition in the event of war. The process took a heavy toll on the already sluggish Soviet economy. According to CIA analysis at the time, some 40% of food production and imports failed to get to the consumer because of a lack of transport.

The economic and political collapse of the Union of Soviet Socialist Republics (USSR) in 1991 led to a hollowing out of the former Soviet Armed Forces. Russia was no longer able to support two million men in the first strategic echelon, six million in the second echelon, and two million in the third echelon. Troop strength and weapons acquisition programs had to be cut, as the Russian government negotiated with the officer corps its own reduction.

American and NATO air attacks beyond the range of air defenses in the Balkans and in Iraq had a profound psychological impact on the Russian military leadership in the 1990s. Having brought operational art to its highest level in human history, it was devastating to see enemy technology destroy the forces equipped with Soviet hardware and organized under the General Staff's concepts. During the following decade, the General Staff struggled to put in place a planning construct corresponding to the rapidly evolving nature of contemporary warfare.

¹⁸⁶ Major General I. N. Vorobyov and Colonel V. A. Kiselev, “Russian Military Art: History and the Present,” *Military Thought*, Volume 1, 2010.

¹⁸⁷ Timofey Bogdanov, “Russia and Belarus Join Forces at Zapad-2009,” *KM-Novosti*, September 29, 2009.

This was attempted within the constraint of a mobilization-based architecture that was simply unsustainable economically and politically. As one Russian military analyst cogently summarized the situation, during the period “1992-2008, the Russian Army was a shrinking iteration of its Soviet predecessor. It was increasingly ill-suited to Russia’s military-political objectives, the country’s greatly reduced economic resources, and its new market-based economic and social setup.”¹⁸⁸

There were essentially four issues driving Russian General Staff Planning during the initial post-Soviet period. The first was the realization that the noncontact and netcentric style of warfare obviated massive operational-strategic operations planned by the General Staff since the height of the Second World War. Secondly, concerns over weapons of new physical principles and ways in which they would enable the American Conventional Prompt Global Strike strategy prompted aggressive development of a new generation of nuclear warheads and invigorated search for enhanced survivability through greater mobility. Thirdly, these technical challenges were compounded by the loss of strategic depth, which necessitated changes in the application of command-and-control principles to the conduct of operations. Fourthly, a net assessment of the overall military-technical situation led to a search for asymmetric solutions as a means of compensating for inherent inferiorities.

To reflect new geography and strategic realities, the Soviet-era Northwestern, Western, and Southwestern TSMA in the Western Theater of War were downgraded to three Strategic Directions in one Russian Western or European TSMA (See Figure 9). The other two continental TSMA have been referred to as Southern (See Figure 10) and Eastern (See Figure 11).

¹⁸⁸ Mikhail Barabanov, “Hard Lessons Learned: Russian Military Reform up to the Georgian Conflict,” in Colby Howard and Ruslan Pukhaov, *Brothers Armed: Military Aspects of the Crisis in Ukraine*, Minneapolis, NM: East View Press, 2014, p. 88.



Figure 9. Western (European) TSMAs



Figure 10. Southern TSMAs



Figure 11. Eastern TSMAs

Different types of threats were identified for each of these continental TSMAs: Western or European – “innovative armies with forms and means of non-contact use of state-of-the-art forces and resources;” Southern – “irregular formations and guerrilla warfare methods;” and Eastern – “a traditional approach to military operations with large concentrations of military personnel and firepower in specific areas.”¹⁸⁹

The operational planning of the Russian General Staff has been organized around three core themes: 1) that managing “ethnic and religious divisions” is not dissimilar to waging “coalitional warfare”¹⁹⁰

¹⁸⁹ Chief of the Ground Forces Main Staff, “Russia Needs Mobile Forces,” *ITAR-TASS*, September 23, 2009.

¹⁹⁰ See John J. Yurechko, *Coalition Warfare: The Soviet Approach*, Köln: Bundes-institut für ostwissenschaftliche und internationale Studien, 1986. Yurechko’s work on “coalitional warfare” also remains relevant for its own sake, as the Russian General Staff continues to plan

providing both vulnerabilities and opportunities that must be planned for and exercised; 2) that “non-contact” and “netcentric” warfare demands a transformation from a traditional massed army to highly mobile flexible forces that may be rapidly reconfigured during the course of conflict; and 3) that nuclear weapons are to be fully integrated into the operational plan in case their use be required to isolate the zone of conflict and break the will of the opposing forces and coalition to continue the war.

Ethnic and Religious Divisions

The first operational planning theme – planning and training to defend against exploitation¹⁹¹ of and to exploit ethnic and religious divisions – has been the central element of every operational-strategic exercise carried out in the *Zapad* (West) and *Vostok* (East) exercise series, as well as in a number of other exercises of similar scale, conducted in the post-Soviet period. While most Western analysts have been dismissive of Russian claims that its military exercises were concerned with “anti-terrorist” operations, operational-tactical scale training for combating terrorism makes eminently good sense given Russian views about the nature of warfare in the post-Soviet period. Whereas the Soviet General Staff had elaborated extensive plans for operational-strategic scale defensive and offensive operations within TSMA and on Strategic Directions, new technologies had obviated concepts founded on the

warfare against NATO with an eye toward breaking alliance cohesiveness. In the ZAPAD-2009 scenario, for example, the Russians “played” France and Germany as being unwilling to honor their North Atlantic Treaty Organization Article Five obligations – i.e., they remained neutral during the conflict scenario. This indicates that France and Germany have conveyed to Russia impressions undermining deterrence of conflict in Europe.

¹⁹¹ Moscow has well-founded concerns about separatism, not only in the Caucasus but also concerning Siberia and Kaliningrad. “Putin has responded to the recent upsurge in separatist thinking in Siberia by using his police powers to block plans for marches in support of federalization within the Russian Federation and then with his proposals to shift ministries and launch a series of mega projects in that region.” Paul Goble, “Putin’s Development Plan for Siberia Driven by Fears of Separatism But May Spark More, Analyst Says,” *Window on Eurasia*, September 5, 2014. “Kaliningrad’s non-contiguous location, its closeness to European Union countries, and the fact that 25 percent of its residents have Schengen visas and 60 percent have foreign passports all have the effect of making ever more Kaliningraders look toward Europe rather than toward Russia proper.” Paul Goble, “‘Siberian Federalization’ Idea Spreads to Kaliningrad and Kuban,” *Window on Eurasia*, August 13, 2014.

experience of the Great Patriotic War (1941-1945) and made contemporary by the Cold War generation of General Staff officers.

A new generation of Russian General Staff officers is responsible for constructing and training armed forces capable of defeating opponents in a nonlinear environment. An examination of the operational-strategic scale exercises beginning in 1999 shows operations similar to that which Putin has been waging against Ukraine. This includes: 1) tactical deployment of airborne troops to block a terrorist incursion as part of *Vostok-2003*; 2) defense against “separatist and radical religious-nationalist movements or international radical groups” as part of *Vostok-2005*; 3) exercise scenario with the Chinese involving combat against terrorism, separatism and extremism in Cooperation 2005 immediately following *Vostok-2005*; 4) containment of internal armed conflict as well as “illegal armed formations” and “terrorist groups” in *Vostok-2007*; 5) combating an uprising by the Polish minority in Belarus in *Zapad-2009*; as well as 6) interdiction of illegal armed formation in *Zapad-2013*. These are only a few select examples to illustrate that the Russian General Staff understands and has been preparing for the nature of contemporary warfare.

When General Valery Gerasimov, Russian Chief of the General Staff, articulated the political strategy informing Russian military doctrine in a speech to the Russian Academy of Military Science in January 2013,¹⁹² he was providing answers to the following three questions:

- 1) What is modern war?
- 2) What should the army be prepared for?
- 3) How should it be armed?

In answering these three questions, Gerasimov explained that “war in general is not declared”, and observed that “the difference between strategic, operational, and tactical levels, as well as between offensive

¹⁹² This speech was later reworked and published as an article. See V. V. Gerasimov, “Ценность Науки в Предвидении” [The value of science in forecasting], *Военно-Промышленный Курьер*, August 2013. The Russian Academy of Military Science is headed by Army General M. A. Gareev. See Ulrik Franke, *War by non-military means: Understanding Russian information warfare*, Stockholm: Swedish Defense Research Agency, February 18, 2015, p. 41.

and defensive operations, are being erased.” In contemporary war “the focus of applied methods of conflict has altered in the direction of the broad use of political, economic, informational, humanitarian, and other nonmilitary measures— applied in coordination with the protest potential of the population.” Still being warfare, “all this is supplemented by military means of a concealed character, including carrying out actions of informational conflict and the actions of special-operations forces. The open use of forces— often under the guise of peacekeeping and crisis regulation— is resorted to only at a certain stage, primarily for the achievement of final success in the conflict.”

What the army must be prepared for, noted General Gerasimov, is the conduct of asymmetrical actions “enabling the nullification of any enemy’s advantages in armed conflict. Among such actions are the use of special-operations forces and internal opposition to create a permanent operating front through the entire territory of the enemy state, as well as information actions, devices, and means that are constantly being perfected.”

What is new about Russian “new generation warfare” is a definition of “deep operations” that extends operations throughout the territory of the opposing forces.¹⁹³ Already in the 2010 Military Doctrine of the Russian Federation it was observed that a concrete feature of modern military conflict involves “the prior implementation of measures of information warfare in order to achieve political objectives without the utilization of military force and, subsequently, in the interest of shaping a favorable response from the world community to the utilization of military forces.”¹⁹⁴ The 2014 Military Doctrine of the Russian Federation further elaborated on “the use of indirect and asymmetric methods of action,” to include “use of externally funded and run political forces and

¹⁹³ This observation was contributed by Diego Ruiz-Palmer of NATO Headquarters at the June 2015 European-American Security Workshop in Florence, Italy.

¹⁹⁴ Gregory Karasin, Russian Deputy Foreign Minister, provided an example of an effort “to achieve political objectives without the utilization of military force” when he warned Ukraine that relying on a military solution to end the Russian-generated “rebellion” in the Donbas would be “the biggest, even strategic mistake” and could “lead to irreversible consequences for Ukraine’s statehood.” That this diplomatic bullying was not universally condemned can be considered a measure of the effectiveness of Russia’s so-called “new generational warfare.”

social movements.”¹⁹⁵ It even defined modern warfare as “the integrated employment of military force, political, economic, informational and other non-military means, implemented with the extensive use of the protest potential of the population and special operations forces.” This, according to Russian Defense Minister Sergey Shoigu, substantiated the need to create the National Defense Center to integrate 52 executive agencies into “a single information space for solving tasks in the interest of the country’s defense.”¹⁹⁶

The Kremlin propagandist, Dmitry Kieselev, made clear that the army must be adequately prepared for information warfare when he declared “information war is now the main type of war, preparing the way for military action.” “Adequate” is the critical word here, since information warfare, “derived directly from *spetspropaganda* (special propaganda) theory, which was first taught as a separate subject in 1942 at the Military Institute of Foreign Languages.”¹⁹⁷ Continuing to conduct research and training in *spetspropaganda*, “the institute is now known as the Military Information and Foreign Languages Department of the

¹⁹⁵ “Amid growing evidence that the Kremlin is backing anti-European parties across the [European] continent,” Marine Le Pen admitted that her far-right Front National accepted money from a Russian-owned bank, which the Party’s treasurer said “would be used to finance campaigning expenses in the lead up to the French national elections in 2017”. “Russian loans have also been extended to Greece’s neofascist Golden Dawn party, Belgium’s Vlaams Belang, Italy’s Northern League, Hungary’s Jobbik and the Freedom Party of Austria. All of these parties except the Golden Dawn were invited to observe Crimea vote on joining Russia and all offered their support for the annexation of the south-eastern Ukrainian region.” “Russia funds French National Front: is Moscow sowing European unrest?”

<http://www.theweek.co.uk/europe/61498/russia-funds-french-national-front-is-moscow-sowing-european-unrest>, 5/15/16, 11:27 AM. See also, Henry Ridgwell, “French Far-right National Front Reveals Russian Financing,” *Voice of America*, November 25, 2014,

<http://www.voanews.com/content/french-national-front-reveals-russian-financing/2534184.html> It is widely known that the Kremlin has been financing foreign organizations such as the National Front. According to Roman Dobrochotov, a “journalist and activist” associated with “The Independent,” which has been described as “a small group of freelance journalists and researchers in Moscow financed by ads, crowd funding, and ‘a few friends,’ ...it is no secret that the Kremlin is co-financing ultranationalist groups such as the ‘black International,’ which are among the groups organizing anti-Merkel demonstrations.” Juri Rescheto, “Russian voices for sale in media war on Germany,” *DW.com*, 04.02.2016.

¹⁹⁶ “Russia’s National Defense Control Center officially takes up combat duty,” *TASS*, December 1, 2014, <http://rass.ru/en/russia/764480>

¹⁹⁷ Jolanta Darczewska, *The Anatomy of Russian Information Warfare: The Crimean Operation, A Case Study*, Warsaw: Center for Eastern Studies, May 2014, p. 9.

Military University of the Ministry of Defense of the Russian Federation.”¹⁹⁸ This newfound emphasis on information warfare as a leading element of contemporary warfare reflects the political assessment of the Putin regime’s ability to compete with Western democracies. Unable to compete in the modern world, Putin has sought out a place for Russia opposing what it cannot be — a modern state committed to human dignity. This approach mimics the long-standing Russian psychology articulated as “if you will not respect me, then I’ll make you fear me.” That this is the so-called political “leadership” guiding contemporary Russian military doctrine has been confirmed by Professor Igor Panarin of the Diplomatic Academy in the Russian Ministry of Foreign Affairs. In his work *Information Warfare and the World*, Panarin attributes Russia’s leadership of the 21st Century political processes to the formulation established by Vladimir Putin in his 1999 manifesto *Russia at the Turn of the Millennium*.

Russia Today (now RT) serves as the flagship of official Russian “advertising” to “prepare the way for military action.” Set up by presidential decree in 2005, the 24/7 channel broadcasting in English, Arabic, and Spanish has an annual budget of over \$300 million.¹⁹⁹ While the Russian Government’s propaganda arm has a mission to “give Russia’s point of view on world events,”²⁰⁰ it has been caught using fake

¹⁹⁸ *Ibid.*

¹⁹⁹ Edward Delman, “When is a TV Channel a Foreign Agent?” Reuters, April 22, 2015. In spite of the budget difficulties now being endured by the Putin regime due to the decline of energy prices and the West’s policy of economic sanctions for violating Ukraine’s sovereignty, the budget for RT is “set to increase by 41% to include German- and French- language channels.” Peter Pomerantsev and Michael Weiss, “The Menace of Unreality: How the Kremlin Weaponizes Information, Culture and Money,” *The Interpreter*, Institute of Modern Russia, p. 6.

²⁰⁰ Although it addresses the subject of the dubious annals of climate-change denial, the documentary *Merchants of Doubt* examines this strategy of passing as fact-based hard news the so-called “invaluable other side of the story” that an unquestioning Western press and academia eager to amplify misdirection in the name of “fairness and balance” to an intellectually lazy public serves as a sobering example of “how tribal fealty trumps objective reality.” See Ann Hornaday, “Spinning out of control with a familiar formula,” *Washington Post*, March 13, 2015.

pictures and fake witness accounts of alleged Ukrainian atrocities.²⁰¹ As observed by the Director of the Cardiff School of Journalism, Richard Sambrook, “What they’re saying they are offering is a different perspective – the problem is that’s quite often fictional.”²⁰² In addition to the Russian media propaganda, the British think-tank, Chatham House estimates the Russian “NGO” component of Russia’s information warfare initiative is spending another \$100 million per year.

Perhaps the best example of how this “NGO” element of Russian information warfare is contributing to Russia’s military operations in Ukraine’s Donbas is the linkage established by Dr. Phillip A. Karber between the so-called “humanitarian assistance” convoys to the Donbas by the Russian Red Cross and the offensive combat operations conducted immediately after the white-painted trucks of the Russian Red Cross have completed resupply operations. The implication that the assistance must be “humanitarian” because it is conducted by the “Red Cross” is undermined by the fact that there is absolutely no legal connection between the International Red Cross and the Russian Red Cross – a so-called “non-governmental organization” funded by the Russian Government. Paint military resupply convoys white, call them by a misleading internationally recognized name, and get a “free pass” not only from interdiction, but take a credit with global public opinion for providing succor to the suffering caused by its own aggression.

During the Soviet period, *KGB* Active Measures employed an estimated 15,000 agents to place forgeries in international media. While *KGB* Active Measures went to great lengths to make their forgeries look convincing, now the Kremlin doesn’t care if it is caught; the aim is to

²⁰¹ Deutsche Welle has exposed the Russian media for hiring “witnesses” ready for telling their stories at whatever price fits “the broadcaster’s budget.” See, for example, Juri Rescheto, “Russian voices for sale in media war on Germany,” *DW.com*, February 4, 2016

²⁰² The Managing Director of *RT*, Alexey Nikolov, doesn’t even attempt to feign journalistic integrity when he states “there is no such thing as objective reporting.” It’s not about the “content” but the “messaging” as Nikolov observes “...there is always a Russian point of view. Take a banana. For someone its food. For someone else it’s a weapon. For a racist it’s something to tease a black person with.” As summarized by Peter Pomerantsev, “Russia’s opportunistic foreign policy, all wrapped up in a banana metaphor.”

confuse rather than convince, to crowd the information space so the audience gives up looking for any truth amid the chaos.

As pointed out by Christopher Walker of the National Endowment for Democracy,

not long ago, many observers were dismissive of RT's influence. Today, however, thoughtful analysts are not as cavalier. While it is admittedly difficult to offer a precise metric of influence, RT and other Russian government media have become intertwined with the world of normal news, especially online. Key narratives pushed by such Russian media are picked up and propagated by Western news outlets. Popular aggregators of information on Russia...seamlessly include RT and other Kremlin-backed media alongside sources such as the Associated Press and the German broadcaster Deutsche Welle. Slick web sites with phony, misleading news reports appear increasingly in the new democracies of Central Europe to offer a Kremlin spin on events.²⁰³

Two Russian military officers identified the nine elements of “new generation warfare,” citing examples for many of the elements from the experiences of Western armies.²⁰⁴ These elements are: 1) non-military asymmetric warfare to establish a favorable socio-economic and political environment; 2) special operations to misdirect elites; 3) intimidation, fraud, and bribery; 4) destabilization operations and organization of a military opposition; 5) introduction of armed insurgents and support thereof; 6) clandestine military intervention; 7) use of electronic warfare and high-technology reconnaissance to facilitate the destruction of resisting forces; 8) overt intervention to occupy territory and suppress any remaining resistance; and 9) threats to use nuclear weapons, and to use precision weapons to destroy

²⁰³ Christopher Walker, “The threat of zombie democracy,” *The Washington Post*, April 19, 2015, p. A23.

²⁰⁴ Colonel S. G. Checkinov and LTG S. A. Bogdanov, “On the Character and Content of New Generation Warfare,” *Военная Мысль*, October 2013.

nuclear power plants, chemical industry facilities and large hydro-electric power plants. The nine elements should not be perceived as discretely independent of one another as any number of them may be at play at the same time (See Figure 12).

Conducting exercises to train the Russian Armed Forces in the execution of the various elements of “new generation warfare,” the General Staff routinely deploys into the field “aggressor forces” to train on lower-level forms of violence, and “friendly forces” to train on combating such violence with all means up to and including the notional employment of nuclear weapons.

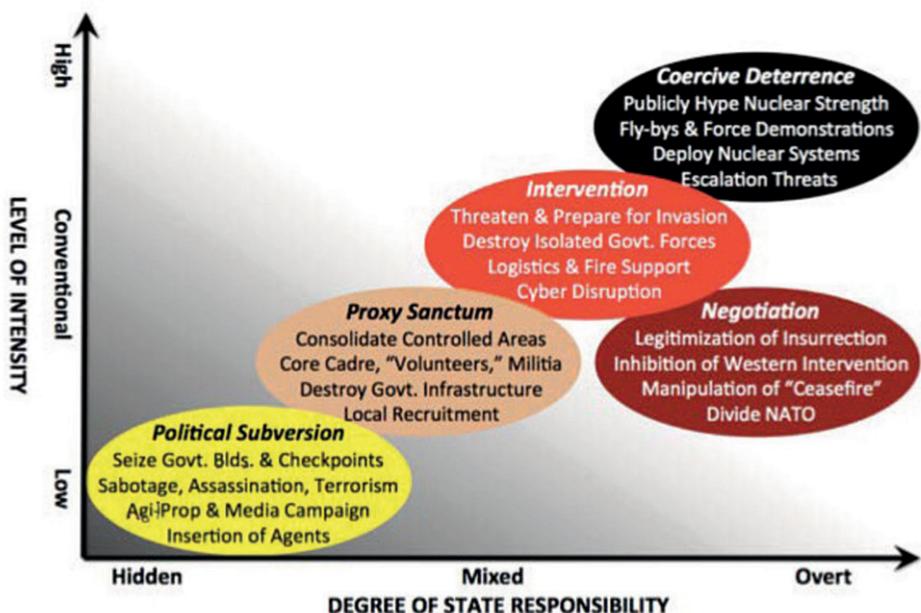


Figure 12. Russian New Generation Warfare

Hence, “aggressor” forces practice exploiting ethnic and religious diversity to promote separatism; supporting separatist elements with arms and advisors; practice the employment of as many as 1,000 “diversionary” regulars in support of the separatists; as well as exercise the employment of “regular” armed formations to prevent the defeat of the faux “rebellion.” As part of what is presented as counter-terrorism training, friendly forces in the exercises isolate diversionary regulars of

the aggressor forces and, along with Interior Ministry Troops (*MVD*), complete the destruction of the illegal armed forces; and employ nuclear weapons to isolate the conflict region from aggressor reinforcement, and compel negotiations.

The practical effect of Russian operational-strategic scale exercises is that, in providing “aggressor” force field training, *GRU* and *FSB* officers are trained to organize and lead “terrorists” and “illegal armed formations” under cover of “deceptive measures.” As a result of the exercises, the Russian Armed Forces are trained to use “partisan-style conflict” that “practically eliminates the distinction between the actions of diversionary groups, the regular army and partisan units” that “can be extraordinarily effective against opponents who rely only on regular units.”²⁰⁵ The fact that the Interior Ministry Troops (*MVD*) are trained to “pacify” occupied areas once major offensive operations have terminated, and that the *MVD* constitute as much as sixty percent of the total troops training in an operational-strategic exercise, suggests the General Staff’s solution to the manpower shortages frequently cited as why the Russian Ground Forces would have inadequate numbers to conduct a major offensive against NATO.

Russian operational-strategic exercises since the end of the Soviet Union prepared the Armed Forces for the challenges facing the country in the former Soviet territories. Exercise lessons applied in Putin’s war to seize Crimea²⁰⁶ include the following: 1) ethnicity is a fundamental tool for

²⁰⁵ Lieutenant General and Doctor of Sciences Anatoly Zaitsev, “Guerilla Methods: a modern army should be able to fight without front lines,” *Военно-Промышленный Курьер*, September 2014; (General Zaitsev is a former Deputy Commander of the Transbaikal Military District and former Deputy Defense Minister of Abkhazia).

²⁰⁶ In a “documentary, which is called ‘Crimea: The Road Back to the Motherland’” shown on Russian television, Putin revealed that “he personally oversaw the planning of the takeover operation in Crimea” and in a *Rossiya-1* interview said that “Russia planned a special operation on returning Crimea...[at] a specific planning event that went on till the early morning of Feb. 23, 2014, when he told his special services that they ‘have to start the work on return of Crimea to Russia.’” Furthermore, “Igor Girkin, a former defense minister of the self-proclaimed Donetsk People’s Republic, said that the local parliament members were basically held at gunpoint to support he annexation.” See Olena Goncharova, “Putin’s narrative on Crimea annexation takes an evolutionary leap,” *Kyiv Post*, <http://www.kyivpost.com/content/kyiv-post-plus/putins-narrative-on-crimea-annexation-takes-an-evolutionary-leap-383183.html>

political justification and operational strategy; 2) subversion via regular armed forces concealed as “illegal armed formations” is effective;²⁰⁷ 3) something similar to coalitional warfare strategy can be successfully employed to attack the opponent’s cohesiveness; and 4) political use of nuclear threats is an effective instrument to delay or prevent the opponent’s timely operational responses. Clearly, the information warfare waged in support of the early stages of Putin’s war against Ukraine was successful beyond his expectations.²⁰⁸ “The ideas and messages of faux NGOs and election monitors [were] widely disseminated through authoritarian-backed media, propelling their alternate reality abroad.”²⁰⁹ Not only did Putin’s special operations to seize Crimea take Ukraine by surprise, it paralyzed Western capitals.

During the [subsequent] referendum in Crimea, a hodgepodge of radical political figures, uncredited for authentic election monitoring, appeared on Russian government media outlets to present findings that went lock step with those of the Kremlin. In this brave new world, faux monitors speaking about a fake referendum are broadcast to the world from a simulated news outlet.²¹⁰

Since “the enemy” *per se* was not Ukraine, but European political culture as represented by the European Union and defended by NATO, the war has been shifting to the next vulnerability— the Baltic States.

Checkinov and Bogdanov postulate that “information and psychological warfare aimed at achieving superiority in the field of command and control and the moral and psychological suppression of the armed

²⁰⁷ The effectiveness of regular armed forces concealed as “illegal armed formations” clearly depends upon the conditions under which the operation is conducted. For example, the effort by Russian intelligence in Saint Petersburg and Rostov-on-Don to establish the so-called “Bessarabian People’s Republic” in Odessa quickly collapsed when preempted by well-trained and loyal counter-terrorist troops. See Maxim Tucker, “Ukraine claims to foil Kremlin plot for new breakaway state,” <http://europe.newsweek.com/ukraine-claims-foil-kremlin-plot-new-breakaway-state-327171>

²⁰⁸ Michael Birnbaum, “In documentary, Putin says ease of action in Crimea was a surprise,” *Washington Post*, March 16, 2015, p. A11.

²⁰⁹ Walker, “The threat of zombie democracy,” *The Washington Post*, April 19, 2015, p. A23.

²¹⁰ *Ibid.*

forces and the population of the opposing side will assume a leading role in new generation warfare...and largely create the preconditions for achieving victory.” **Accordingly, Putin’s strategic objectives are not aimed outright against the EU and NATO, but against the Baltic States in an effort to show that neither organization is capable of ensuring their security.**²¹¹

Russian media has been actively questioning the status of the Baltic States, suggesting that, while the titular peoples of these states may have legitimate claims to their own homelands, they do not represent all such claims, nor do they account for the legitimate aspirations of the Russian-speakers living among them (See Figure 13).



Figure 13. Russian-Published Alternative Map of the Baltic Region

Note that in this adjustment to the Baltic borders, the capitals of all three states are transferred to Russia, and a new independent state of Latgaliya is created. Lithuania becomes land-locked; Kaliningrad is no longer an exclave; and Russia gets the Estonian islands of Hiiumaa and Saaremaa.²¹² In this manner, current borders are questioned as being reflective of, in the words of Chekinov and Bogdanov, the principals of “democracy and respect for human rights.” Plans for executing a “new

²¹¹ Briefing by W. Sam Lauber, *AWG Russian Hybrid Warfare Study: Using Crimea to Assess the Vulnerability of the Baltic States*, Johns Hopkins, Applied Physics Laboratory, May 15, 2015.

²¹² Estonian islands of Hiiumaa and Saaremaa, if controlled by Russia, would host Russian air defenses extending far out into the Baltic Sea and, thereby, dramatically shift the geo-strategic security environment for the entire continent.

generation” war against the Baltic States center on making Dugavpils and Latgale “the Donbas of the Baltic States” with Daugavpils²¹³ and Rēzekne becoming “the Donetsk and Luhansk of Latvia.” A Russian government-employed propaganda corps has set up Latgaliya separatist websites and clubs, and even designed a flag for this “people’s republic-to be” (See Figure 14).²¹⁴



Figure 14. The Latgale Peoples Republic flag

Transformation to Highly Mobile and Rapidly Reconfigurable Forces

The second operational planning theme – that “non-contact” and “netcentric” warfare demand a transformation from a traditional massed army to highly mobile flexible forces that may be rapidly reconfigured during the course of conflict was reflected in the Zapad-1999 military scenario based upon Yugoslav observations. As the focus of operational-strategic scale exercises shifted to the east, they continued to examine a wide-range of missions responding to disasters and other emergency situations that involved the armed forces and special units from the Interior Ministry and Emergency Situations Ministry in the employment of geographically dispersed forces to wage

²¹³ Although Daugavpils is the second largest city in Latvia, it would probably be transferred to Russia if Putin’s plans for revising Baltic borders were to be accomplished, with the second largest city of Latgale, Rēzekne – known as “the heart of Latgale” becoming the capital of a Russian puppet state.

²¹⁴ See Andrew Higgins, “Latvian Region Has Distinct Identity, and Allure for Russia,” *The New York Times*, May 20, 2015.

integrated warfare with the employment of appropriate non-contact capability. The “need to create mobile, self-sufficient troop groupings capable of being transported to the threatened sector of the country’s territory” as reflected in the forcing of 85 Permanent Readiness Brigades from Soviet-era divisions and regiments became, along with a resolution to the question of the Operational-Strategic Command of Forces, the core issues of Osen-2009, with its one scenario for three Strategic Directions (Ladoga for the Northwestern, Zapad for the Western, and Kavkas for the Southwestern).

Given the loss of strategic depth in central Europe, the Cold War roles of Military Districts as instruments of mobilization of second echelon armies and *fronts* for intermediate level strategic commands seemed inadequate, potentially confusing, and even inefficient. After some discussion, it was decided to exercise the operational subordination of all forces in a Military District to that Headquarters during *Zapad-2009*. By the end of the following year, the number of Military Districts was reduced to four, with each given the operational command of the forces on their respective territories. Thus, the Western Military District’s Headquarters in St. Petersburg came to assume operational-strategic command of forces on its territory (See Figure 15).



Figure 15. Western Military District – from Mobilization Base to High Command.

On the subject of the new brigade structure, the *Zapad-2009* exercise was, by Russian assessment, a disappointment. The new brigades, retaining the firepower of divisions, were too heavy and cumbersome. Command and control of the new brigades proved ineffective. An “unnamed Russian Lieutenant General” proclaimed the structure to have posed a span of control challenge:

*With the elimination of the divisions, the army commanders were compelled to directly command and control the brigades. But there are masses of them there. A division commander can command and control 3-4 regiments with difficulty. He simply cannot deal with a larger number of units. I know that from my own personal experience. But right now there will be up to 15 brigades and separate battalions in an army. Try to deal with that bunch.*²¹⁵

Beyond this basic management violation of the span of control norm of three to five, *Zapad-2009* also demonstrated the shortage of unmanned

²¹⁵ Vyacheslav Tetekin, “Laying It on Thick: The Zapad-2009 Exercises: a Professional’s View,” *Pravda*, November 13, 2009.

aerial vehicles and other technologies fundamental to netcentric warfare. The unavailability of a sufficient number of drones and, in particular the lack of understanding by tactical commanders of how to employ them effectively in providing fire support of the operational plan, was particularly frustrating to senior commanders. As observed by Artillery Marshal V. Mikhalkin at the time, “the West does not even have equivalents to some of our missiles and artillery systems. They are capable of carrying out any task. But they need exact coordinates; and we have problems with that.”²¹⁶ Within five years, both the numbers of drones and the skill in employing them effectively in service of operational-tactical maneuver was resolved. According to Dr. Phillip Karber, Russian drones are ubiquitous over the Donbas battlefield and his first-hand experience with the time between reconnaissance to strike give a clarifying cognitive meaning to their description as “complexes.”

Combat command of forces has also become an area of remarkable improvement since Zapad-2009. Russian operations in the Donbas have been conducted largely by Battalion Tactical Groups (See Figure 16), and the leadership of these formations has generally proved effective. Dr. Karber has attributed this success to lessons of asymmetric war learned in Chechnya and Georgia. In the case of Chechnya, problems with hastily mobilized conscripts translated to poor morale and low effectiveness that, in turn, resulted in high casualties and an unpopular war. By the start of the 2008 operation in Georgia, conscripts were replaced with professional soldiers comprised of *spetsnaz* and airborne “tank riders”²¹⁷ along with contract soldiers for the more skilled branch requirements such as artillery. In Putin’s 2014 invasion of Ukraine, “expendable infantry” was comprised of mercenaries (largely Chechens

²¹⁶ Interview with Artillery Marshall Vladimir Mikhalkin, in Gennadiy Miranovich, “An Army One Wants to Serve In,” *Красная Звезда*, October 14, 2009.

²¹⁷ “HIS Jane’s assesses there are between 15,000 and 17,000 *Spetsnaz* troops split between the regular and naval *Spetsnaz*, as well as the comparable elements of Air Assault Troops (*Воздушно-Десантные Войска: ВДВ*) and the Ministry of the Interior (*Внутренние Войска: ВВ*).” In addition, according to the same source, “the newly formed Special Operations Command (*Команда Специальных Операций: КСО*)” has a “strength closer to just 500 personnel.” “The rising influence of Russian special forces,” *Jane’s Intelligence Review*, November 24, 2014.

and Cossacks), “bonus volunteers” (sometimes seriously misled or coerced conscripts²¹⁸), local criminals and indigenous miscreants (to include prisoners),²¹⁹ and a small number of highly motivated “professional Russians” specifically trained to be “separatists”.²²⁰ This approach has provided Putin with a profound political flexibility — internationally, he was able to deny Russian military involvement; and domestically, he was able to hide the true cost in life and treasure from the Russian public.

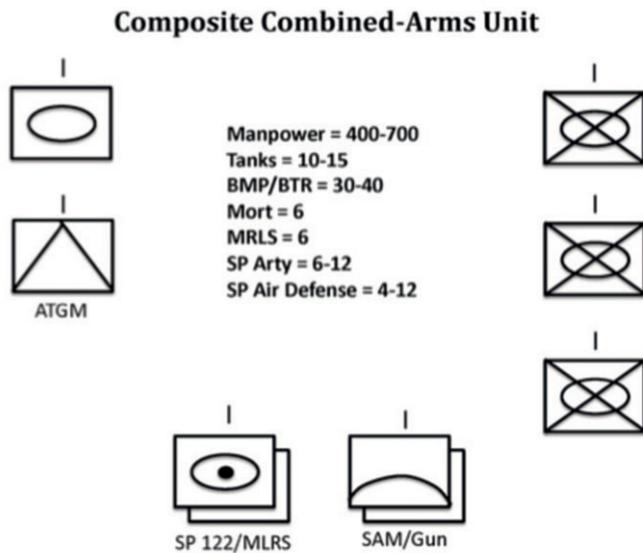


Figure 16. Battalion Tactical Group

²¹⁸ “No one is told that they will go to Ukraine. Officially they go [south] for military exercises...” Sergei Chernov, “Conscripts’ Relatives Fear They’ll Be Sent to Ukraine Amid Alleged Coercion,” *The Moscow Times*, January 29, 2015.

²¹⁹ On occasion, the Russians have employed penal battalion of poorly trained and heavily drugged troops referred to as “zombies” by Ukrainian troops.

²²⁰ Alexander Borodai, who served as prime minister of the self-proclaimed “Donetsk People’s Republic,” and Igor Strelkov, who was the main rebel commander at the time Malaysian flight MH-17 was shot down by a Russian-manned anti-aircraft missile, are both Muscovites who fought in Moldova’s breakaway Transdnestr region in the 1990s. Anton Zverev, “Russian former leader of Ukraine rebels warns of ‘big war,’” *World*, June 24, 2015. <http://www.reuters.com/article/2015/06/24/us-ukraine-crisis-borodai-idUSKBNOP41SQ20150624>

The research carried out by The Potomac Foundation's Phillip Karber and Nicholas Myers documents the origins of each of the Russian Battalion Tactical Groups operating in Ukraine's Donbas (See Figure 17). As Russian success led to a fully entrenched presence of the Russian Armed Forces in Ukraine's Donbas, the General Staff put in place a Corps structure to insure proper command and control of operations (See Figure 18), hence addressing the "span-of-control" problem identified in *Zapad-2009*.

Consistent with General Gerasimov's view that "war in general is not declared," and observation by Checkinov and Bogdanov that the "clandestine military intervention" is covered by "massive propaganda" in which "non-military means can reduce the opportunities" for employing military means through use of "information warfare" exploiting "almost all public institutions" to include "public movements funded from abroad and researchers working on foreign grants," **Putin has yet again managed to seize territory in Europe without military opposition by the European governments.** The significance of this fact cannot be overestimated in "the second smallest continent in the world that has more than 50 distinct, sovereign nation-states." Since "the core of the EU project is an effort to reduce the power and significance of borders without actually abolishing them,"²²¹ Putin's continued undermining of the principle that European borders cannot be allowed to change, in fact, a part of a strategy for undermining and destroying the European Union. Putin and his generals have specifically avoided saying so, but they are at war with the European Union and its North American allies.

²²¹ George Friedman, "What Borders Mean to Europe," *Geopolitical Weekly*: Stratfor Global Intelligence, June 23, 2015.



Figure 17. Origin of Russian Battalion Tactical Groups in Ukraine

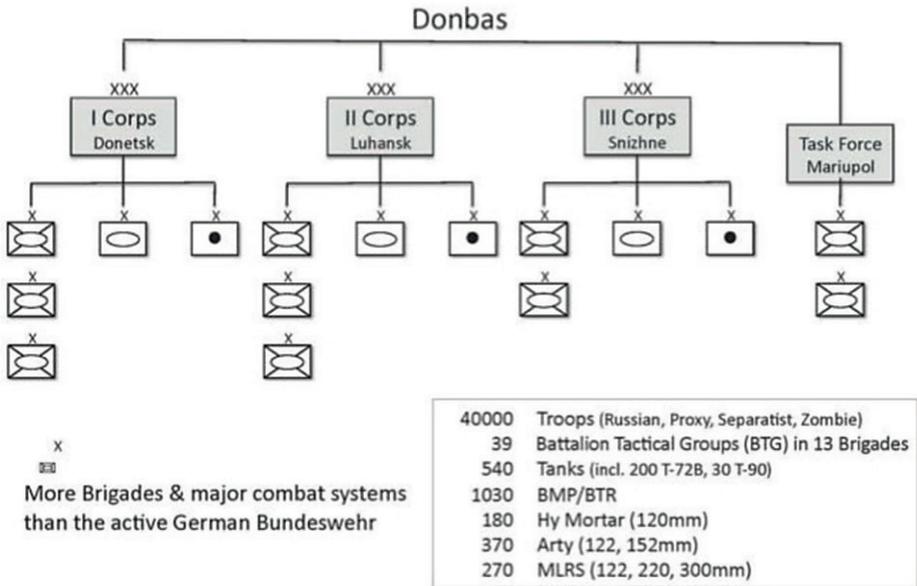


Figure 18. New Russian Corps Structure in Ukraine

4th Generation Nuclear Weapons

The third operational planning theme — operational integration of low-yield nuclear weapons — emerged as the Russian General Staff came to understand that its armed forces would continue to be confronted by a diminished force-to-space ratio and that the mobilization basis of Soviet-era planning was not sustainable.

Already in 1997, scientists such as Rady Ivanovich Ilkaev, Director of the Russian Research Institute of Experimental Physics (VNIIEF), were arguing that “in the future, we may have other sophisticated (conventional) weapons, but at the present we must rely on nuclear weapons. If they are used at the local or regional level, there should be no widespread effect—only the military mission. We must move away from weapons of mass destruction to weapons for local use.” As research in nuclear physics proceeded in this direction, Viktor Nikitovich Mikhailov, Scientific Director of VNIIEF, made clear in 2002 that “we should also carefully approach the problem of developing low and super-low yield nuclear weapons and precision weapons with nuclear warheads. Such weapons can be realistically utilized in the event of large scale military conflict involving the use of conventional arms or mass destruction weapons when there is a threat to our country’s existence or worsening of the living conditions of our people.”²²²

By the first half of 1999, the “nuclear fetishism” that had characterized the Sokolovsky-era of Soviet military thought during the 1960s and 1970s returned with vengeance. Russian military theorists were ready to state boldly that “we believe nuclear weapons must be regarded

²²² The notion that an “economic threat” could lead to the employment of nuclear weapons in response is especially disturbing given some of the recent Russian statements regarding the possibility of expelling the Russian Federation from the “SWIFT” system in response to Putin’s military aggression. Andrey L. Kostin, President and Chairman of VTB (Russia’s second largest bank) warned at the January 2015 World Economic Forum that Russia’s expulsion from SWIFT would instantly lead to the expulsion of the U.S. ambassador from Moscow and the recall of Russia’s ambassador to Washington. It would mean that “the countries are on the verge of war, or they are definitely in a cold war.” When asked about the possibility of SWIFT sanctions, which bar Russia from the international payment system, Russian Prime Minister Dmitry Medvedev warned that Moscow’s response would be “without limits.” Also see, Fareed Zakaria, “Sanctions Russia will respect,” *The Washington Post*, February 13, 2015, p. A19.

as the principal means of ensuring the military security of Russia and its allies at present and in the near future....”²²³

Fulfilling the de-escalation function 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 is advisable to execute this mission using non-strategic (above all operational-tactical) nuclear weapons, which can preclude an “avalanching” escalation of the use of nuclear weapons right up to an exchange of massed nuclear strokes delivered by strategic assets. It seems that the cessation of military operations will be the most acceptable thing for the enemy in this case/.../

*The condition for using non-strategic nuclear weapons can be as follows: enemy use of mass destruction weapons or reliable discovery of his preparation for their use; destruction of our strategic weapons, above all nuclear weapons, and also important economic installations (atomic electric power stations, hydroelectric stations, major enterprises of the chemical and military industry, the most important transportation hubs) by enemy conventional weapons; appearance of a threat of disturbance of stability of a strategic defense in the presence of a large-scale enemy invasion.*²²⁴

Unlike the cumulative continuity model of American graduated escalation during the Soviet period, the discontinuous intimidation model of escalating to de-escalate (See Figure 19) is directed at the vulnerabilities of both the opposing coalition, as well as perceived strengths and weaknesses of its individual members.

²²³ Major-General V. I. Levshin, Colonel A. V. Nedelin, and Colonel M. Ye. Sosnovskiy, “The Use of Nuclear Weapons to De-escalate Military Operations,” *Military Thought*, May-June 1999, pp. 34-37.

²²⁴ *Ibid.*

- Stage 1 – Demonstration**
(unpopulated targets)
- Stage 2 – Intimidation-Demonstration**
(single strikes)
- Stage 3 – Intimidation**
(group strikes to change balance on operational direction)
- Stage 4 – Intimidation-Retaliatio**
(strikes across the theater to “eliminate the threat of defeat”)
- Stage 5 – Retaliation-Intimidation**
(massive strikes to annihilate the enemy in the theater)
- Stage 6 – Retaliation**
(massive theater & strategic strikes)

V.I Levshin, A.V. Nedelin and M.E. Sosnovsky, “O Primeenenii Yadernogo Oruzhiya Dlya Deeskalatsii Voyennyskh Deistviy [On Use of Nuclear Weapons for De-escalation of Military Operations],” *Voyennaya Mysl*, May 1999.

Figure 19. Russian Theory of Nuclear De-escalation

The United States had explicitly forbid its labs from conducting research on 4th generation nuclear weapons under the assumption that it is possible to avoid nuclear use so long as the weapons remain “too terrible to use”. However, such an approach fails to address the challenge of one side having nuclear weapons of .02 kiloton or less, and the other — only weapons of indiscrete size and means of delivery. **The quandary of an appropriate contemporary response to a discrete use of small-yield nuclear weapons by the Russians is, in fact, routed in a long disconnect in how Russian military planners and Western arms-control theorists view the role of nuclear weapons.** The Russians explicitly reject the Western concept of nuclear deterrence, which they consistently translate as *устрашение*, which means “frightening” or “terrorizing.” The Russians attack this notion as a concept that threatens an opponent with nuclear punishment for military

misbehavior, administered after it is too late to have any major military effect (i.e., when the use of nuclear weapons will not change the outcome of the conflict). On the other hand, the Russians have a concept of deterrence which they consistently express with the word *сдерживание*, meaning “restraint,” as in the way they relate to their own concept of the utility of military power. Unlike the punitive killing called for by the Western concept *устрашение, сдерживание* restrains the enemy through his perception that his opponent is actually prepared to do battle at every level of conflict. In other words, the ability to restrain an enemy is the by-product of one’s readiness to fight, unlike nuclear “terrorizing,” which tends to serve as a substitute for the capability to fight.²²⁵

The American nuclear scientist, George Ullrich, argued more than two years ago that “4th Gen weapons have significant military utility with minimal undesired collateral consequences” and, therefore, “could lower [the] threshold of use and complicate retaliatory actions.” Ullrich insisted that there was “strong evidence that Russia (perhaps others) are pursuing 4th Gen weapons and may be on the verge of deployment,”²²⁶ and Russian statements suggest he was correct.²²⁷ Russian military officers have been making statements since 2009 suggesting that “there is no longer any need to equip missiles with powerful nuclear warheads. We can install low-yield warheads on existing cruise missiles.”²²⁸ According to Ullrich, “the current and planned global nuclear detection and monitoring architecture does not account for and would not be effective against 4th Gen weapons,” and

²²⁵ This insight was first articulated by John G. Hines and Phillip A. Petersen in “The Conventional Offensive in Soviet Theater Strategy,” *ORBIS*, Fall 1983, pp. 736-737.

²²⁶ Briefing by George W. Ullrich, “US-Russia Nonstrategic Nuclear Weapons: A Troubling Numerical and Technological Asymmetry”, May 15, 2014.

²²⁷ The evidence suggests that the decision to develop many low-yield nuclear warheads was taken by the Russian Security Council in April 1999 during Vladimir Putin’s first meeting as Secretary. See Nikolak Sokov, the April 1999 Russian Federation Security Council Meeting on Nuclear Weapons, Center for Nonproliferation Studies, Monterey Institute, June 1, 1999

²²⁸ Vice Admiral Oleg Burtsev, Deputy Head of the Russian Main Naval Staff, *RIA Novosti*, March 25, 2009.

urges that “U.S. arms control policy needs to catch up to the near- and longer-term potential of deployed 4th Gen weapons.”²²⁹

That nuclear weapons will remain an essential foundation of Russian military power has been made clear by the recommendations made in the 2014 defense posture review concerning nuclear weapons: 1) the Strategic Rocket Forces MIRV and return to Strategic Mobile Rail deployment; and 2) the active tactical nuclear warhead inventory be reduced from 2,500 to 2,050 modernized weapons to take advantage of progress in developing smaller size (weight/diameter/sub-kt yield) as well as reduced fission component (i.e., cleaner). The 2,050 tactical nuclear warheads belong to the following five categories, with not less than 300 nor more than 600 in each: 1) air-delivered guided gravity bombs and cruise missile warheads; 2) SS-26 ISKANDER missiles of varying range; 3) tactical nuclear artillery armed with 50km+ RAP nuclear round and treated as a “golden gun” not operating in battery formation; 4) air defense tactical nuclear sub-kiloton warhead for S-500 in tactical ballistic missile role as well as for S-300/S-400 in “anti-stealth” role; and 5) naval tactical nuclear roles to include surface-to-surface, air defense, homing torpedo, and “tethered smart mine.”

What has not been generally appreciated is that **the nuclear play in Russian exercises, as well as Moscow’s threats to regional non-nuclear states,**²³⁰ **are not only consistent with the development of a capacity**

²²⁹ Ullrich, *ibid.*

²³⁰ Mikhail Vanin, Russian Ambassador to Denmark wrote: “I don’t think the Danes fully understand the consequences of what will happen if Denmark joins the American-led missile defense. If this happens, Danish war ships will become targets for Russian atomic missiles. ...I want to simply remind you that it will cost you both money and security.” *Jyllands-Posten*, March 2015. When the Danish Government indignantly asked for “clarification” from Moscow, the Russian Foreign Ministry curtly noted that the Ambassador wrote exactly what he was instructed to write. Even the United States is not immune to Russian nuclear threats. During the Marsh 2015 Elbe Group Meeting in Germany, Russian Generals Briefed by Foreign Minister Sergei Lavrov on the messages he wanted delivered, warned of three flashpoints that could lead to nuclear war: 1) Crimea, where any attempt to return the annexed peninsula to Ukraine would be met “forcefully including through the use of nuclear war”; 2) east Ukraine, where the supply of weapons by NATO to Kyiv would be read as “further encroachment by NATO to the Russian border,” to which “the Russian people would demand a forceful response”; and 3) the Baltic States, where the Russian saw “the same conditions that existed in Ukraine and caused Russia to take action there.” See Polina Tikhonova, “Russia Threatens Nuclear War To Drive NATO Out Of Baltics,” valuewalk.com/2015/04/russia-threatens-nuclear-war/ Also see “Russia

to deliver on doctrine and strategy levels, but reflect genuine changes in Russia’s military posture and planning. During the first post-Soviet era operational-strategic exercise in *Zapad-1999*, the Russians admitted that they were “rehearsing one provision of Russian Military Doctrine—the use of nuclear weapons when all measures for the organization of defense have been exhausted.” In this case, the exercise scenario called for “compelling negotiations” through “preemptive use of a nuclear weapon.” Actually, several such weapons were notionally used, as the Strategic Rocket Forces employed SS-27/TOPOL missile strikes against theater targets to isolate the battlefield; and cruise missile strikes launched from Long Range Aviation aircraft were conducted against Atlantic Coast ports of the United States to prevent reinforcement of the European theater. Finally, a notional nuclear strike against Warsaw was employed to “persuade” other NATO capitals to agree to end the conflict. While Moscow was careful to minimize “bad publicity” fallout from the notional use of nuclear weapons in subsequent *Zapad*-series exercises, dividing the *Zapad* exercises into components “played” independently could not disguise the link between notional nuclear employment and the scenarios upon which the exercise play was based.

Asymmetries in Opposing Operational Concepts

It is critical to assess the asymmetries in how Russia and the West perceive the conduct of operations during contemporary warfare.

That the United States has been slow to draw lessons from Russia’s wars against its neighbors— from Georgia²³¹ to Ukraine— suggests the “fighting the last war” syndrome. America is also handicapped by its “joint” approach to warfare, which leaves each Service fighting for its piece of the defense budget (as compared to the Russian combined-

reportedly issues new threat to NATO over forces in Baltics, Fox News, <http://www.foxnews.com/world/2015/04/02/russia-reportedly-issues-new-threat-to-natio-over-forces-in-baltics/> Also see “Vladimir Putin Threatens World War 3, Says Russia Could Invade Europe Within Two Days,” *INQUISITR*, September 19, 2014.

²³¹ “Vladimir Putin’s admission that the war in Georgia in 2008, including the use of separatists, was preplanned”, Kremlin.ru, August 10, 2012; Stephen Blank, “What Do the Zapad 2013 Exercises Reveal? In Liudas Zdanavičius and Matthew Czekaj, editors, *Russia’s Zapad 2013 Military Exercise: Lessons for Baltic Regional Security*, The Jamestown Foundation and National Defense Academy of Latvia: Washington, DC: December 2015, p. 12.

arms approach driven by a General Staff). While Vladimir Putin has created a standing Supreme High Command Headquarters to plan and organize his undeclared war against the European Union and NATO, the latter is trying to explain Russia's non-existent "hybrid warfare," and the Pentagon's "brass" is quibbling over how to divide the defense budget. Long after Putin had publically admitted that they were his soldiers and the invasion was a planned operation to seize the Crimea, discussions about the Russian aggression are still being prefaced with the qualifier "alleged;" and **the high-intensity end of Russia's New Generation Warfare is being willfully ignored by the focus on special operations implied in hybrid warfare.**²³²

A few critical tasks should be accomplished to meet the challenge of General Gerasimov's New Generation Warfare. Deterrence is accomplished by persuading the Russians that they have nothing to gain from escalating, and this can only be accomplished by calling into doubt their ability to win at the overt level of operations. Once this fact is comprehended, NATO needs to deal with the Russian concept of nuclear escalation to deescalate, then high-intensity warfare, and only then do covert capabilities enter the deterrence picture

The United States Army's effort to move its tanks back into Europe and deploy them forward where they would actually be relevant to deterrence is probably the single most critical element to restoring military stability in Europe today. Boasting that America's M1A1 Tank has never been defeated in battle is downright silly when the tanks aren't even in Europe or forward deployed. Arguing that the Army is not "outranged and outgunned" because the U.S. goes to war with components from all the services is another foolish argument if the Army is too small and not deployed in Europe. Moreover, given that the U.S. Navy will not fight in the Baltic Sea and the Air Force won't be attacking Russian ground forces until after their layered air defenses have been destroyed, **the question arises of exactly who would be**

²³² "Like the Yom Kippur War 40 years earlier, the Russo-Ukrainian War is a natural 'test bed' and insightful glimpse of what is to come on future battlefields." Phillip Karber and Lt. Col. Joshua Thibeault, "Russia's New Generation Warfare," *Army Magazine*, June 2016.

holding the ground until the other services show up. The failure to address this important question is indicative of the lack of appreciation of asymmetries in operational concepts. ²³³ The arrogance being heard in the current intra-service and intra-Army debate going into the 2016 Presidential Election was indicative of a massive ignorance of the asymmetries in opposing operational concepts. One may not have to match an opponent's forces numerically, but if one intends to deter that opponent, one does have to be credibly capable of defeating the opponent's strategy. Understanding what the potential enemy thinks he has to be capable of accomplishing is the starting point of deterrence.

It was some eight years after the collapse of the Soviet Union before the Russian General Staff persuaded the Russian Government to conduct its first operational-strategic exercise. As noted by Brzezinski and Varangis,

*Exercises are used by defense establishments to test their readiness, deployability, and logistical and combat proficiency. They can be used as demonstrations of force to underscore determination to defend national territory/interests and those of allies and partners. They can also be use to intimidate and to camouflage offensive operations. Regarding the latter, in February 2014 Russia mobilized 150,000 troops under the guise of an anti-terror simulation. Many of the units in this exercise were deployed along Ukraine's border just as Russia invaded Crimea and then later eastern Ukraine.*²³⁴

Essentially, Brzezinski and Varangis express two concerns; 1) that there is a troubling difference in the scale of exercises between NATO and the Russian Federation; and 2) that Putin's "snap-check" exercises provide a cover for "a swift attack [that] could establish a *fait accompli* before NATO decision-makers convened to agree on what had transpired and

²³³ See, for example, Mark Perry, "The U.S. Army's War Over Russia," POLITICO, May 12, 2016, <http://politico.com/magazine/story/2016/05/army-internal-fight-russia-defense-budget-213885>

²³⁴ Ian J. Brzezinski and Nicholas Varangis, "The NATO-Russia Exercise Gap," Washington: The Atlantic Council, February 23, 2015.

how to respond.”²³⁵ Although these “snap-check” exercises could provide *maskirovka* for Russian preparations for an invasion of NATO Member States, war against NATO in the European Military of Operations is concretely simulated in the *Zapad* exercise series.

Zapad-1999

The failure of Europe to deal effectively with the collapse of Yugoslavia led to many of the tensions confronting the United States approximately one and one-half decades later. As the crisis generated by Slobodan Milosevic’s destructive policies that led to Slovenia and Slovakia declaring independence from the Yugoslav Federation, and the resulting war by Serbia against Bosnia’s effort to follow them, riveted the world’s attention on yet another holocaust in Europe, the United States was confronted by two policy challenges. The near-term challenge was how to prevent Milosevic’s war in Yugoslavia from undoing of all the ethnic harmony brought to Europe by the existence of NATO and the post-1945 presence of American troops. Ultimately, this led to the United States’ conduct of what Russian military theorists came to refer to as “non-contact” warfare in which an opponent’s military capacity for resistance is destroyed without direct engagement of ground forces (i.e., via air and missile strikes). The sobering impact of this latest “revolution in military affairs” on the Russian military cannot be underestimated. The second, longer-term challenge would be the impact that Milosevic’s ethnic war on Bosnia’s Muslims had on Israel’s comprehension of Europe’s willingness to tolerate another holocaust less than seventy years after allowing six million European Jews be exterminated. “Never again” obtained the qualifier “unless it requires blood and treasure.” This understanding changed everything not only for Israel and its American ally, but for all of Israel’s neighbors, even as far away as Moscow.

This conflict led the Russians to conclude that it “has practically no allies in the world except Belarus.”²³⁶ “Russia proved unable to rapidly

²³⁵ *Ibid.*

²³⁶ Aleksandr Minakov, *Moscow Center TV*, June 21, 1999.

dispatch its military units to the Balkans by air, because NATO countries, or states with a strong wish to join NATO, are located in this strategic direction. In other strategic directions the situation is much the same.”²³⁷ Clearly, the Russian General Staff had come to a sense of urgency in revisiting the command and control of forces in defense of the state.²³⁸ **The realization that Russia was increasingly isolated and needed to give careful thought to defending itself in a rapidly changing strategic environment led in 1999 to the holding of operational-strategic military exercises, the first since 1985.**²³⁹ Beyond the military-technical reasons for this major 1999 exercise, “in a political sense, this was a reaction to NATO’s expansion and a warning of a possible response to the continuation of this process.”²⁴⁰

The scenario of *Zapad-1999* was driven by what Russian General Staff perceived as an emerging style of warfare (i.e., noncontact and net-centric) as well as the opportunity to increase Russian influence over Aleksandr Lukashenka, President of Belarus who heeded the fate of Milosevic. The General Staff offered up a political scenario that appeared consistent with superficial observations of NATO’s combat actions against Serbia: “After a long period of political pressure on Belarus and the advancing of territorial pretensions against it, and after an attempt to limit Russian sovereignty in Kaliningrad Oblast, the enemy decided to resort to military operations.”²⁴¹ With this political scenario as background, the military scenario was based upon the General Staff’s observations with regard to the conduct of operations against Milosevic’s forces in Yugoslavia:

²³⁷ Minakov, *Moscow Center TV*, June 21, 1999.

²³⁸ Oleg Falichev and Oleg Pochinyuk, “Training Makes the Army Strong. We Must Never Forget That,” *Krasnaya Zvezda*, June 23, 1999, p. 1.

²³⁹ Sergey Anisko, “Russia and Belarus Restore Territorial Integrity. While Boris Yeltsin Makes Peace With West ‘After the Fight,’ Military Start Preparing for a ‘Real’ Fight,” *Segodnya*, June 23, 1999, p. 3.

²⁴⁰ Petr Polkovnikov, “From Kaliningrad to the Chinese Border: Military Strategic Exercises Like Zapad-99 Promise To Be Systematic,” *Независимое Военное Обозрение*, July 2, 1999, Number 25, p. 5.

²⁴¹ Polkovnikov, *ibid.*

*an enemy strike aviation and naval grouping of 450 tactical and strategic aircraft as well as 120 cruise missiles with non-nuclear warheads which were deployed ahead of time in north and northeast Europe inflicted strikes in Belarusian territory. At the same time 110 aircraft and 40 cruise missiles attacked troops in Kaliningrad Special Region. Enemy ground forces began a limited attack on Russia and Belarus.*²⁴²

As one might have expected in a scenario written by the Operations Directorate of the Russian General Staff, the “Russian Armed Forces repelled the attacks on Kaliningrad Oblast, but the Belarusians required help.”²⁴³ The merged Air and Air Defense Forces were described in Russian reports as having successfully organized a classic air operation (*воздушная операция*). The purpose of the operation was to “deliver preemptive missile and air strikes against the network of airfields in Poland and the Baltic countries that NATO is using” to support the attack on Belarus and Kaliningrad. Additionally, it was meant to exercise a classic anti-air operation (*противовоздушная операция*) integrating the air defense assets of the Russian Federation and Belarus “to prevent enemy means of air attack from breaking through to key political, military, and administrative targets.”²⁴⁴ In a horizontal escalation from the Western Strategic Direction to the Northwestern Strategic Direction, “at the same time there are strikes against alliance air and naval bases in Norway, and also against NATO carrier task forces in the Barents and Norwegian Seas.”²⁴⁵ Initial success against the enemy’s air and naval forces allowed for “landing a Russian force on the territory of Estonia and Latvia and moving Belarusian troops into Lithuania.”²⁴⁶ As part of continued horizontal escalation to the Southwestern Strategic Direction, “Black Sea Fleet forces and aircraft are used to deliver strikes against Turkey’s military airfields.”²⁴⁷

²⁴² Polkovnikov, *ibid.*

²⁴³ Polkovnikov, *ibid.*

²⁴⁴ Igor Korotchenko, “Russian Army Prepares To Repulse Aggression. NATO Allied Armed Forces Will Feature on General Staff Maps As Likely Adversary,” *Независимая Газета*, June 22, 1999

²⁴⁵ Korotchenko, “Russian Army Prepares To Repulse Aggression,” *ibid.*

²⁴⁶ Korotchenko, “Russian Army Prepares To Repulse Aggression,” *ibid.*

²⁴⁷ Korotchenko, “Russian Army Prepares To Repulse Aggression,” *ibid.*

As the exercise proceeded, “after repulsing the [enemy’s air] offensive, the Russian Air Force launches the 37th Air Army (long-range aviation) to block the advance of the enemy’s reserves” and, while the enemy advance into the depths of Belarusian territory was contained by the western and northwestern *fronts*, “the northwestern *front*, jointly with the Baltic Fleet relieved the blockade on the Kaliningrad Special Region.”²⁴⁸ Despite the success of Russian and Belarusian forces,

*the enemy, with his overwhelming superiority in conventional armaments, opts for an escalation of the conflict. To stop him, Russia’s leadership decides to resort to a nuclear strike for demonstration purposes. This task, which was already rehearsed during the exercises in October 1998...is assigned to the 37th Strategic Aviation Army.*²⁴⁹

*“Two pairs of strategic missile-carrying aircraft from the Donbas Red Banner 22nd Guards Heavy Bomber Division” were launched from Engels air base 14 kilometers (8.7 miles) east of Saratov.*²⁵⁰

A pair of supersonic Tu-160’s followed the entire Norwegian coastline, simulated the launch of Kh-55 cruise missiles, turned round, and took the same route back to their own base area. The Norwegian F-16’s were too late to intercept – in the space of a few years it appears that NATO pilots have lost the ability to deal with eastern visitors. On entering the air force’s southern firing range one of the crews carried out a real launch. Without waiting for the missile’s three-hour flight to end, the “Blackjacks” (NATO designation for Tu-160’s) returned to the airfield, having spent 12 hours aloft.

²⁴⁸ Polkovnikov, *ibid*.

²⁴⁹ Sergey Sokut, “Balkan Options Fails. Repulsion of Enemy’s Air Offensive Rehearsed in the Course of Zapad ‘99 Exercises,” *Независимая Газета (Electronic Version)*, June 24, 1999, p. 2.

²⁵⁰ Sergey Sokut, “Return ‘from Round the Corner.’ Long-Range Aviation Pilots Fly to America for First Time in Recent Years,” *Независимая Газета*, June 29, 1999, p. 2. Engels was, until 1941, an important town of the Volga Germans called Pokrovsk. “Turning the Corner” is a reference to when during the Soviet era strategic bombers flying over the Arctic Ocean would take a sharp south-west turn toward Iceland and North America.

*Meanwhile a pair of Tu-95MS's was still in the air. In the course of a 15-hour flight they crossed the North Atlantic, made a detour to take in Iceland, indicated a missile launch and then returned, launching on the way a Kh-55 at a target on the firing range.*²⁵¹

The Russian press made clear the nature and explained the significance of the nuclear strikes of Long-Range Aviation. As part of the *Zapad-1999* exercise scenario, "in response to an air attack on its territory (on the Kaliningrad Special Region, to be exact) and on the territory of Belarus, Russia inflicted a nuclear strike not only on the territory of the immediate aggressor countries but also on U.S. territory."²⁵² The Russian Defense Minister unequivocally made clear that the Russian Armed Forces "was forced to launch nuclear strikes first which enabled it to achieve a breakthrough in the theater situation."²⁵³ As explained by the Russian press:

*The Russian Federation's military doctrine does not contain the Soviet Union's previously declared commitment not to be first to use nuclear weapons. Admittedly what it does enshrine is that Russia does not intend to use any weapons first and nuclear weapons are regarded as an extreme resort [крайнее средство]. We do not intend using our nuclear weapons now against any state which is party to the Nuclear Non-proliferation Treaty except in cases of armed aggression by such a state against Russia or of joint military actions by it with a state which possesses nuclear weapons against Russia or its allies.*²⁵⁴

As justification for the shift in the policy of first use of nuclear weapons, the Russian press explained that "such 'militarism' by Russia is indeed an enforced phenomenon: You have to deter potential aggressors

²⁵¹ Sokut, "Return from 'Round the Corner'," *ibid.*

²⁵² Aleksandr Koretskiy, "Russia Inflicted Nuclear Strikes on United States. Only in Training for Now," *Сегодня*, July 2, 1999, p. 1.

²⁵³ Marshal Igor Sergeev as quoted in Vladimir Sokirko, "Top-ol, Top-ol," *Moskovskiy Komsolmolets*, 23 December 1999.

²⁵⁴ Vladimir Sokirko, "Top-ol, Top-ol," *Московский Комсомолец*, December 23, 1999.

somehow.”²⁵⁵ In some ways, Russian thinking reflected in the exercise would be observed fifteen years later when Russian forces seized Crimea. Once in possession of another state’s territory, Russia assumed a defensive posture prepared to employ nuclear weapons to retain its gains.

In terms of bringing the *Zapad-1999* exercise to a close, the scenario envisaged that, “fearing that the conflict may develop into a total nuclear war, the enemy is compelled to start negotiations.”²⁵⁶ The Russian Defense Minister affirmed that “we were rehearsing one provision of the Russian military doctrine – the use of nuclear weapons when all measures for the organization of defense have been exhausted.”²⁵⁷ Concerned about their ability to successfully defend Russia against what they’d seen accomplished by NATO against Milosevic with non-nuclear precision weapons, the Russian military “worked out a variant of a preemptive use of a nuclear weapon against an enemy”²⁵⁸. The exercise achieved its intended psychological impact when it “rattled the nerves of NATO member-countr[ies]...depriving them of their feeling of invulnerability and as a consequence – impunity.”²⁵⁹

The Commander-in-Chief of the Russian Air Force and Air Defense had already drawn the conclusion prior to any assessment of the results of *Zapad-1999* that

High-precision weapons must predominate in the Army today. Not only frontline aviation but also long-range aviation must have them. At the moment we clearly have a shortage of such weapons. For example, our strategic bombers are equipped with missiles which only have nuclear warheads, but high-precision missiles fitted with conventional warheads are also necessary. It was these missiles that NATO

²⁵⁵ Sokirko, “Top-ol, Top-ol,” *ibid*.

²⁵⁶ Sergey Sokut, “Balkan Options Fails,” *ibid*.

²⁵⁷ Marshal Igor Sergeev as quoted in Vladimir Yermolin, “Army Ready To Resolve Strategic Tasks,” *Известия*, July 10, 1999, p. 1.

²⁵⁸ Sergey Ishchenko, “Sensation: Don’t Drive Russia into a Corner,” *Труд*, July 10, 1999, p.1

²⁵⁹ Vladislav Yevdokimov, “I Serve the Fatherland,” *Russian Television Network*, July 4, 1999.

*used extensively; they destroyed bridges, factories, oil storage tanks, and other important targets with them. These weapons are close to nuclear weapons in their effectiveness, but they are not nuclear weapons.*²⁶⁰

In this revolutionary military circumstance, the Main Operations Directorate of the General Staff of the Russian Armed Forces sought

*to improve the operating methods of command and operations personnel of formations of the branches of the Armed Forces of the Western Region in command and control under conditions of a worsening of the military-political situation, outbreak of armed conflicts, and their development into a regional war.*²⁶¹

The exercise had to be all the more sobering for the Operations Directorate when

*two days before the start of the exercises, the previously stipulated fuel allocations were cut in half. They thus had to drop from the forces participating in the exercise the Admiral Levchenko and Admiral Kharlamov BPKs [large ASW ship], and reduce the time at sea for the Admiral Chabanenko BPK and the Marshal Ustinov RKR [missile cruiser]. Moreover, the projected time spent in the air by missile-carrying and helicopter aviation was cut exactly in half. The exercise plan thus did not have the “prize” search for nuclear-powered and diesel submarines and the landing of a commando group from a submarine.*²⁶²

²⁶⁰ Colonel General Anatoliy Kornukov, *Российская Газета*, June 26, 1999, p. 2.

²⁶¹ Colonel General Yuriy Baluyevskiy as quoted in Vladimir Mukhin, “For the Edification of ‘Unfriendly Countries’: Exercise Zapad-99 Demonstrates Russia’s Ability to Oppose External Aggression,” *Независимое Военное Обозрение*, June 25, 1999, Number 24, p. 2.

²⁶² Dimitiy Litovkin and Roman Fomishenko, “The ‘Zapad-99’ Transpolar Tack,” *Красная Звезда*, July 13, 1999.

Zapad-2009

Although *Zapad-2009* was identified as a discrete training event, this exercise was conducted in concert with *Ladoga-2009* and *Kavkas-2009* (Caucasus-2009)²⁶³ as a series of large-scale military exercises comprising the *Osen-2009* (Autumn-2009) maneuvers.²⁶⁴ The special feature of *Osen-2009* was that it encompassed all three strategic axes in the Western or European TSMA— the southwest, west, and northwest.²⁶⁵ The great reduction in the depth of the territory the General Staff has to plan to defend has turned what during the Soviet era were three TSMA's into Strategic Directions in the contemporary Russian period. This reality also led to the necessity for changes in the role of the Military Districts, which during the Soviet period had largely played the roles of administrative housekeeping for the second strategic echelon and mobilization base for the third strategic echelon forces. As explained by the Ground Forces Commander-in-Chief,

*the military district – it is an operational-strategic command. That is its function and that is the statute on the military district.... The military district commander is the operational-strategic command commander. Let's take the specific example of our Ladoga exercises. Leningrad Military District covers the Northwestern Strategic Direction. The entire troop grouping, which is on this territory, is part of the composition of Leningrad Military District and is completely subordinate to the operational-strategic command commander.*²⁶⁶

Complicating the command and control issues for the Russian General Staff was the struggle to manage forces during a “transition to a system

²⁶³ The Kavkaz-2009 operational-strategic exercises took place in the North Caucasus region

²⁶⁴ Chief of the Main Staff of the Russian Ground Forces, Lt-General Sergey Skokov, as quoted by ITAR-TASS, September 23, 2009.

²⁶⁵ Andrey Korbut, “From Moscow to the British Seas,” *Voyenno-Promyshlennyy Kuryer*, September 30, 2009.

²⁶⁶ Vladimir Anatolyevich Boldyrev as quoted in Olga Bozhyeva, “The Russian Army Has Been Totally Broken Down. Into Brigades: RF Ground Forces Commander-in-Chief Vladimir Boldyrev told Moscovskiy Komsomolets about the First Real Results of Military Reform,” *Московский Комсомолец*, September 30, 2009.

of network-centric wars”.²⁶⁷ By this term, Russian military theorists in and out of uniform mean

*Pentagon know-how that has been evaluated in all recent military conflicts in which the American Army or its allies have taken part. Its essence lies in large-scale use of electronic reconnaissance and target acquisition employing satellites, unmanned aerial vehicles and so on, as well as the employment of mobile groups of troops that can be redeployed rapidly throughout a TVD to deliver attacks against an enemy from the flanks or rear.*²⁶⁸

In 2009, this strategic environment was assessed to be further complicated by the need to prepare for a widely divergent character to the potential threats.

*There are fundamental differences between the potential enemy’s methods of conducting military operations and hostilities in different theaters of operations, the western, eastern and southern ones.” If we take the western strategic area, Russian forces there may be confronted by innovative armies with forms and means of non-contact use of state-of-the-art forces and resources. In the east, it can be an army of many millions with a traditional approach to military operations: head-on, with large concentration of personnel and firepower in specific areas. As regards southern Russia, there we may face irregular formations and sabotage-and-reconnaissance groups using guerrilla warfare methods to fight the federal authorities.”*²⁶⁹

To meet this complex challenge of varying types of warfare in a rapidly evolving technological environment, the Russian General Staff had concluded that Russia should have mobile self-sufficient forces capable

²⁶⁷ A. Danko, “Zapad-2009: First Results,” *Страж Балтики*, 18 September 2009.

²⁶⁸ Dmitriy Litovkin, “The Exercises Ended up in the Network,” *Известия* (online version), September 28, 2009.

²⁶⁹ Chief of the Main Staff of the Russian Ground Forces, Lt-General Sergey Skokov, as quoted by ITAR-TASS, September 23, 2009.

of repelling aggression in all of these areas— the west, the east, and the south. As this challenge was elaborated,

*contemporary wars, just like future wars, do not have a sharply defined front line. They flow and will flow...and actually, while preparing to repel the aggression of a serious probable enemy (not detachments of terrorists), we need to create mobile, self-sufficient troop groupings, which are capable of being transported to the threatened sector of the country's territory, to the area that is imminent or has flared up, in a matter of hours. And these units are being created right now – these are the permanent combat readiness brigades.*²⁷⁰

Thus, the other fundamental struggle concerning the command and control of combat maneuver forces that the Russian General Staff has been struggling with is adapting the old Soviet structure to account for what Russian military theorists refer to as “noncontact” and “net-centric” conflict. Four motorized rifle and tank brigades from Russia and two mechanized and one tank brigade from Belarus participated in *Zapad-2009*.²⁷¹

Until restructuring of the combat elements of the Ground Forces was announced at the end of 2008, Russia “had six permanent readiness divisions” and by September 2009 the divisions and regiments had been “reorganized” into 85 permanent readiness brigades and an additional “reconnaissance brigade” was being created. “The permanent readiness units must be no less than 95% manned (80% was permitted in Soviet times).”²⁷² Each permanent readiness brigade was to be equipped with an “Iskander” (SS-26 Stone) missile battalion comprised with not less

²⁷⁰ Viktor Litovkin, “Military Mobile Inadequacy,” *Nezavisimaya Gazeta*, September 25, 2009.

²⁷¹ Tatyana Vishnevskaya, “Grodno: The Planning of the Zapad-2009 Operational-Strategic Exercise is Concluding,” *BELTA*, August 31, 2009.

²⁷² Interview with Ground Forces Commander-in-Chief Vladimir Anatolyevich Boldyrev in Olga Bozhyeva, “The Russian Army Has Been Totally Broken Down into Brigades: RF Ground Forces Commander-in-Chief Vladimir Boldyrev told Moskovskiy Komsomolets about the First Real Results of Military Reform, *Московский Комсомолец* (online version), September 30, 2009.

than four launchers plus transporter-loader.²⁷³ The Commander-in-Chief of the Ground Forces also noted that air assault brigades would be created for each Military District. As of October 2009, “three of them have been created...and will be used as a mobile reserve of the operational-strategic commander.” Addressing the previous move of Army Aviation from the Ground Forces to the Air and Air Defense Forces, the CINC of the Ground Forces argued that based upon the experience of the war against Georgia,

*Army Aviation must be in the Ground Forces. It was created for the ground troops. Each [air assault] brigade simply needs a helicopter regiment— approximately 60 helicopters. And we also need to have helicopter regiments to support the operations of our combined-arms brigades.*²⁷⁴

Despite the move to “permanent readiness units,” the CINC of the Ground Forces held firm to the notion of preserving conscription as a means of providing a basis for mobilization. In his view,

*With respect to the mobilization component, no army will ever fight using its initial composition. The Army is designed only for some initial period of military operations. Then the reserves arrive to assist it. In connection with that, we have a mobilization plan. There are more than 60 storage bases in our troops besides the permanent readiness subunits. They are primarily approximately of that same brigade composition. What does that base look like right now? This is a small team of servicemen, approximately 100 civilian personnel and military equipment, which is in storage at their base. Equipment, weapons and ammunition are also stored nearby at the military district depots.*²⁷⁵

²⁷³ Bozhyeva, “The Russian Army Has Been Totally Broken Down into Brigades,” *ibid.* The Iskander appeared to have several different conventional warheads, including a cluster munitions warhead, a fuel-air explosive enhanced-blast warhead, an earth penetrator for bunker busting and an electro-magnetic pulse device for anti-radar missions.

²⁷⁴ Interview with Ground Forces Commander-in-Chief Boldyrev in Bozhyeva, “The Russian Army Has Been Totally Broken Down into Brigades,” *ibid.*

²⁷⁵ Boldyrev in Bozhyeva, “The Russian Army Has Been Totally Broken Down into Brigades,” *ibid.*

The political scenario of *Zapad-2009* was again an attack involving Kaliningrad and Belarus. Its opening vignette included a controversy in Belarus over policies regarding ethnic Poles²⁷⁶ leading to an announcement of an intention to resolve the matter by force. Polish troops crossed the border into Belarus “and the Poles [were] supported by the United States.” An interesting point about how Germany and France are perceived by the Russian General Staff, however, was made by the assumption in the exercise scenario that “the leading countries of NATO and Europe – France and Germany – maintained a prudent neutrality.”²⁷⁷

This time, “Kaliningrad *Oblast* was subjected to an attack from the eastern axis. The aggressors broke through the Russo-Lithuanian border near Krasnoznamensk and, having forded the Neman River, entered into an engagement with the troops of Kaliningrad Defensive Region.”²⁷⁸ “The exercise goal [was] to fend off potential military aggression against what they call the Russian-Belarus Union State.”²⁷⁹ Simultaneously with *Zapad-2009*, the *Ladoga-2009* military exercise was conducted in Murmansk, Pskov and Leningrad regions with the purpose of evaluating the new brigades that had been constructed out of the old divisions and regiments inherited from the Soviet era.

With the beginning of aggression, the Regional Group of Troops repels the enemy’s air attack and delivers a number of retaliatory attacks against his command and control facilities, infrastructure facilities, and troop grouping. With the beginning of the invasion by the ground troop grouping, the Regional Group of Troops carr[ied] out a defensive operation in which it inflicts damage on the aggressor by an active defense of troops in coordination with territorial troops, other

²⁷⁶ Michal Krzymwski, “Russian Wargames,” *Wprost*, November 8, 2009; and Jedrzel Biellecki, “NATO To Address Russian Maneuvers,” *Dziennik Gazetta Prawna*, November 12, 2009.

²⁷⁷ “Troops Were Not Assigned the Task of Taking Warsaw,” *Argumenty Nedeli Online*, October 1, 2009.

²⁷⁸ Aleksandr Ryabushev, “Kaliningrad, under the rubric: Russia’s Regions: Aggressors Have Attacked Yantarnyy Kray,” *Независимая Газета*, September 9, 2009.

²⁷⁹ “Large-Scale Belarus-Russia Military Exercise Under Way on Lithuanian Frontier,” Vilnius *BNS* in English, September 9, 2009.

troops, and military force elements and tries not to let the enemy develop the attack into the depth of its territory.

Conducting a mobile defense on intermediate lines, formations of the first echelon of the Regional Group of Forces inflict[ed] damage on the attacking “enemy.” Formations of second echelons and the combined-arms reserves complete their restoration of combat effectiveness in occup[ied] designated zones on the defensive line.²⁸⁰

As the enemy’s initial attack began to stall, formations of the 20th Combined-Arms Army completed regrouping and moved to assembly areas in readiness to participate in a counter-attack, and artillery moved into positions from which they could provide fire-support to the counter-attack. Despite the efforts of Air Force and Air Defense Troops to limit the effectiveness of enemy offensive air attacks, the enemy committed second echelon corps formations (i.e., a multi-corps attack) to the battle.

Forces of the Union State attempted to preempt this commitment to the battle by employing strategic aviation delivering conventional munitions against important targets in the depth of the “enemy” defense. With the initiation of artillery fire throughout the tactical depth of the enemy’s defense, and the use of “the Tunguska air defense missile-gun complex” (SA-19 Grison) to drive the enemy’s fire support helicopters from the forward edge of the battle area, as well as the efforts of a composite S-300 battalion and by an *Osa* (SA-8 Gecko) battery to protect the commitment of Union States reserves to the battle, the enemy was denied the ability to maneuver reserves and subjected to an assault on the strong points in its defensive positions.

Belarusian-developed tactical and operational-level unmanned aerial vehicle prototypes were employed to provide “real-time” target acquisition and, in an effort to increase the tempo of the counter-attack, “under cover of a group of Mi-24 helicopters, Mi-8 helicopters

²⁸⁰ Vitaliy Denisov and Oleg Gorupay, “In Unified Battle Formation,” *Красная Звезда*, September 29, 2009.

support[ed] a landing in the depth by an assault force, which seize and holds bridges.”²⁸¹ Russian critics, however, were not impressed with what they observed.

The fact that the Georgians, against whom the Russians had gone to war the previous year, had effectively employed unmanned reconnaissance aircraft when the Russians were compelled to employ Tu-22M3 long-range aircraft for such missions was cited as the clear sign that Russia was lagging in its ability to conduct modern military operations. While the need to catch up with other armies was understood, “...in the United States the market of solutions on the organization of netcentric combat operations could reach the amount of \$200 billion over the course of the next decade. Russia doesn’t have that kind of money right now.”²⁸² The former Deputy Commander of the Group of Forces in the Caucasus observed

therefore, the majority of us are fighting using our grandfathers’ traditional methods— we are completing marches, digging trenches and so forth. Of course, that is also needed. All the more so that the marches are being carried out at long distances on unfamiliar terrain, and the engineer preparations of the positions is being done based upon all of the combat standards.²⁸³

Efforts to introduce the basic technology of so-called netcentric warfare during *Zapad-2009* foundered on such realities as limited numbers of unmanned aerial vehicles and Russia’s struggle to develop a global navigation satellite system (*Глобальная Навигационная Спутниковая Система* or *GLONASS*). “So the practical introduction in the allied armies of the concept of net-centric wars is for the time being out of the

²⁸¹ Denisov and Gorupay, “In Unified Battle Formation,” *ibid*.

²⁸² Vladimir Mukhin, “They Have Commanded the Country to ‘Stand To’,” *Независимая Газета*, September 17, 2009.

²⁸³ Lieutenant General Yuriy Netkachev, as quoted in Vladimir Mukhin, “They Have Commanded the Country to ‘Stand To’,” *Независимая Газета*, September 17, 2009.

question.”²⁸⁴ Artillery Marshall Vladimir Mikhalkin admitted that *Zapad-2009* confirmed

*That as far as reconnaissance is concerned, we still lag behind, just like in the Soviet era. We have wonderful striking capabilities. The West does not even have equivalents to some of our missiles and artillery systems. They are capable of carrying out any tasks. But they need exact coordinates. And we have problems with that. For example, our missile salvo systems are capable of striking the enemy at a distance of 60 kilometers. But our reconnaissance capability is so low that the effectiveness of existing weapons is reduced to 20%.*²⁸⁵

The movement of troops and equipment necessary to get the participants to the training areas and weapons ranges for *Zapad-2009* itself became one of the subjects of discussion during the critique of the exercise. “The Moscow Military District’s 20th Army’s 4th Separate Tank Brigade spent nearly five days in getting to the ‘*Zapad-2009*’ Operational Strategic Exercise...time that might not be available under conditions of actual combat operations with the ‘probably enemy.’”²⁸⁶

Given the “transparency” provided by the West’s netcentric combat operations, — meaning its ability to identify where Russian forces were inadequate for successful defense — the Russian General Staff could find itself with insufficient time to accomplish adequate redeployment of combat forces by rail and road. The self-assessment was that Russia was “short on the appropriate quantity of transportation assets to redeploy the brigades to the right place and the right time.”²⁸⁷ Thus, it was concluded, “heavy transport aircraft and heavy helicopters are

²⁸⁴ Former Deputy Commander of the Group of Russian Forces in the Transcaucasus as quoted in Aleksandr Alesin, “Should There Tomorrow Be War,” *Белорусские Новости*, October 8, 2009.

²⁸⁵ Interview with Artillery Marshall Vladimir Mikhalkin, in Gennadiy Miranovich, “An Army One Wants to Serve In,” *Красная Звезда*, October 14, 2009.

²⁸⁶ Litovkin, “Military Mobile Inadequacy,” *ibid*.

²⁸⁷ Viktor Litovkin, “Thunder of Fire, Flash of Steel. Russian Army’s Operational-Strategic Exercises Have Revealed Not Only Reform Successes But Also Unresolved Problems,” *Независимое Военное Обозрение*, October 2, 2009.

needed. But we only have 10 An-124 'Ruslan' aircraft, which can transport tanks and other outsized vehicles, in the country and we have a few more Mi-26 helicopters – 35.”²⁸⁸

Zapad-2009, although it was said to be larger than the *Zapad-1999* exercise, in terms of the number of forces training in the field (numbering in the tens of thousands) was far smaller than the scale of exercises conducted during the Soviet era (numbering in the hundreds of thousands). While in some ways *Zapad-2009* could be seen as political theater, it served not only to expose the equipment “shortcomings” of the Russian Armed Forces, but provided the Armed Forces with an opportunity to launch an assault on political authorities for their failure to modernize the forces:

*If an exercise of this nature had been held some 20 or so years ago then I would have awarded it an excellent rating. In fact, the personnel operated competently enough, they gave it everything. But the weapons and equipment employed on the mock battlefield seemed to have come from a 1970s or 1980s newsreel.*²⁸⁹

During the *Zapad-2009* exercise “the one exceptions were the Mi-28N and Ka-52 helicopters and the new Su-34 front-line bomber. However, there was only one Su-34....”²⁹⁰ When addressing the rhetorical question of why there was little new equipment in wide use during the *Zapad-2009* exercise, the answer was

Because it doesn't actually exist. There is merely a PR circus surrounding individual specimens. But our reform-devastated industry is in no condition to put them into series production. Right in the final days of the exercises the Russian Federation's Comptroller's Office came out with this gloomy figure: The proportion of new equipment available to Russian

²⁸⁸ Litovkin, “Military Mobile Inadequacy,” *ibid*.

²⁸⁹ Colonel (Retired) Anatoliy Vlasov as quoted in “Zapad-2009: A Triumph for 20-Year Old Weapons. New Russian Army Forced to Fight Employing Elements of a Theatrical Performance,” *Свободная Пресса*, October 1, 2009.

²⁹⁰ Ilya Kedrov, “The military ‘Autumn’,” *Военно-Промышленный Курьер*, October 14, 2009.

*troops is just 6 percent at the most (compared to 70 percent in the United States). Consequently, the organization of the mock battles was also based on the tactics of the past. So, if the authorities learn even a single correct lesson from Zapad-2009 then that will be of enormous benefit to the army. And this lesson suggests itself. We need to really address the rearmament of the army and navy and not try to get by, parasite fashion, on Soviet combat hardware that is now almost completely worn out.*²⁹¹

The Chief of the General Staff corroborated this observation: “in order to fight in the new manner and tackle objectives under the new conditions, it is essential to have the appropriate military equipment and arms.”²⁹²

The transformation to the “New Look” brigade structure also was a subject of criticism during the assessment of *Osen-2009*, since “the system of troop command and control at brigade level malfunctioned during the *Kavkaz-2009* exercises.”²⁹³ The exercises conducted as part of *Osen* revealed that the new brigades did not “emerge” organically from new theories of warfare, but more as a result of the reinforcement of regiments or reduction of divisions.²⁹⁴ Artillery Marshal Vladimir Mikhalkin, for example, complained that

Transitioning to a brigade structure requires the creation of an appropriate artillery fire control system. As we know, in a division an artillery chief had a control battery, which had reconnaissance capabilities, communications, capabilities, and firing capabilities. Obviously, the same has to happen in a brigade. If a brigade has, for example, four battalions, then

²⁹¹ Colonel Vlasov as quoted in “Zapad-2009: A Triumph for 20-Year Old Weapons,” *ibid.*

²⁹² General Staff Chief General of the Army Niklay Makarov, “Results of the Zapad-2009 Operational-Strategic Exercise,” *Ministry of Defense of the Russian Federation*, October 5, 2009.

²⁹³ Litovkin, “Military Mobile Inadequacy,” *ibid.*

²⁹⁴ Aleksey Nikolskiy, “The Army Will Be Rebuilt Again,” *Бедомочму*, September 29, 2009.

*the artillery chief cannot create a group and control it, if the chief does not have reconnaissance and command and control capabilities. Each battalion commander would control the fire at his own discretion. And this would be tantamount to striking not with a fist but with spread out fingers.*²⁹⁵

As one observer of the *Ladoda-2009* exercise concluded, “questions remain about the command and control. And as long as there is such a muddle in this matter even in the heads of professionals, we still are doomed for a long while to make an assault landing spectacularly in offshore waves and fight the Germans while telling fairytales about netcentric wars.”²⁹⁶

An anonymous Russian Lieutenant-General condemned the post-Soviet exercises as “the premeditated destruction of the operational-strategic training of the Army.” To begin with, “the Supreme Commander-in-Chief’s Headquarters has not trained even once since 1991.” In truth, the general argued in the pages of *Правда*,

*in our country, matters have reach the point that no one can develop major strategic exercises. We have raised such general cadres, who have never conducted even regimental tactical live-fire exercises. They ended up in the Army when it was in a frozen state. Now these “cadres” have become major leaders. And the experience of the development and preparation of exercises has been completely lost*²⁹⁷

Zapad-2013

The military-political scenario of Zapad-2013 was consistent with almost every other exercise run by the Russian General Staff since 1999. Based

²⁹⁵ Interview with Artillery Marshall Mikhalkin, in Miranovich, “An Army One Wants to Serve In.” *ibid.*

²⁹⁶ Olga Bozhyeva, “‘New Wars’ Festival: Moskovskiy Komsomolets Special Correspondent Was Taken for a CIA Agent in the First Exercise of the Updated Russian Armed Forces,” *Московский Комсомолец Online*, October 8, 2009.

²⁹⁷ Vyacheslav Tetekin, “Laying It on Thick: The Zapad-2009 Exercises: a Professional’s View,” *Правда*, November 13, 2009.

up on the Kremlin's response to the color revolutions (actually beginning with the disintegration of Yugoslavia) blamed on Western aggression in supporting indigenous opposition to repressive regimes, the General Staff trained the forces at its disposal to both support "separatists" as it is doing in the Donbas and to suppress "terrorists" who might mount operations against the Belarusian Government on behalf of ethnic kinsmen (Poles) as well as against Kaliningrad (by Lithuanians, who are said to number approximately 20,000 in Kaliningrad) and Karelia (which is territory that the Soviet Union took from Finland as a result of the Kremlin's 1939-40 aggression in launching the Winter War). The "terrorists" in Zapad-2013 were prevented from seizing key facilities and terrain, so the "terrorists" are supported by NATO and Finnish forces covertly (illegal armed formations) attempting to support the uprising (much as the Russians did the so-called "separatists" in Ukraine once Ukrainian President Poroshenko's Plan B had the Kremlin's proxies on the ropes). Russian and Belarusian forces then blocked air and sea reinforcement of the "illegal armed formations" to prevent their withdrawal. The so-called "illegal armed formations" then retreated into cities (as did the Russian proxies in the Donbas), where the MVD forces eliminate the "terrorists" and suppressed criminal elements supporting them (just as the Ukrainian forces have had to contend with the prisoners released by the Russians on condition they fight against the Ukrainians – the so-called zombies who are "juiced" up by the Russians with alcohol and drugs before being committed to battle).

The scenario involved a conflict developing out of the "deterioration of relations between states due to inter-ethnic and ethno-religious controversies, and territorial claims."²⁹⁸ While on the surface, this might seem a far cry from "a riposte to terrorists," the exercise did, in fact, deal with what might legitimately be called terrorism since this is exactly what the Ukrainian Government in Kyiv considers the Russian proxies in the Donbas to be. Field training of aggressor forces in the exercise provided ample opportunity to train the FSB officers to recruit criminals

²⁹⁸ Belarusian Deputy Defense Minister Major General Pyotr Tsikhanowski, as cited in Bill Gertz, "Russia, China Hold Large-Scale War Games," The Washington Free Beacon, September 26, 2013.

and mercenaries (or separatists, if you prefer), GRU and officers to organize and lead terrorists (or partisan units, if you prefer), and diversionary groups and up to brigade-size units of regular army forces to protect the rebels in “a typical special operation in a certain sense resembling textbook peacekeeping ones.” As a result of the exercise, Russian and Belarusian forces were trained to use “partisan-style conflict” that practically eliminates the distinction between the actions of a diversionary group, the regular army and partisan units.” As for the Interior Ministry troops, they were trained to “pacify” occupied areas once major offensive operations have terminated (i.e., the ability to provide rear area security to forces still in contact with the enemy. For all intents and purposes, “during the Zapad 2013 exercise, the Russian defense establishment tested the concept of total war. Military units acted hand in hand with the FSB, interior ministry troops, police and even local officials.”²⁹⁹ Substantial evidence exists to support the Chief of the General Staff Gerasimov’s assertion that “[the Russian military] worked on the interoperability of all the branches and combat arms and also of the other agencies mobilized in the exercise.”³⁰⁰

²⁹⁹ “Key Findings,” Liudas Zdanavičius and Matthew Czekai, editors, *Russia’s Zapad 2013 Military Exercise: Lessons for Baltic Regional Security*, The Jamestown Foundation and National Defense Academy of Latvia: Washington, DC: December 2015, p. 6.

³⁰⁰ Stephen Blank, “What Do the Zapad 2013 Exercises Review?” In Liudas Zdanavičius and Matthew Czekai, editors, *Russia’s Zapad 2013 Military Exercise: Lessons for Baltic Regional Security*, The Jamestown Foundation and National Defense Academy of Latvia: Washington, DC: December 2015, p. 10. Some of the “other agencies mobilized for the exercise” included Energy and Transport as well as the Interior Ministry.

As for the “friendly” forces in the exercise, Alexander Lapin, the commander of the Russian 20th Army (See Figure 20), observed that “the Army must be ready to repel any threat, be it internal or external. We completed our mission to suppress larger illegal armed groups...and diversionary groups, but was also responsible for the protection of several sections of the border.”³⁰¹

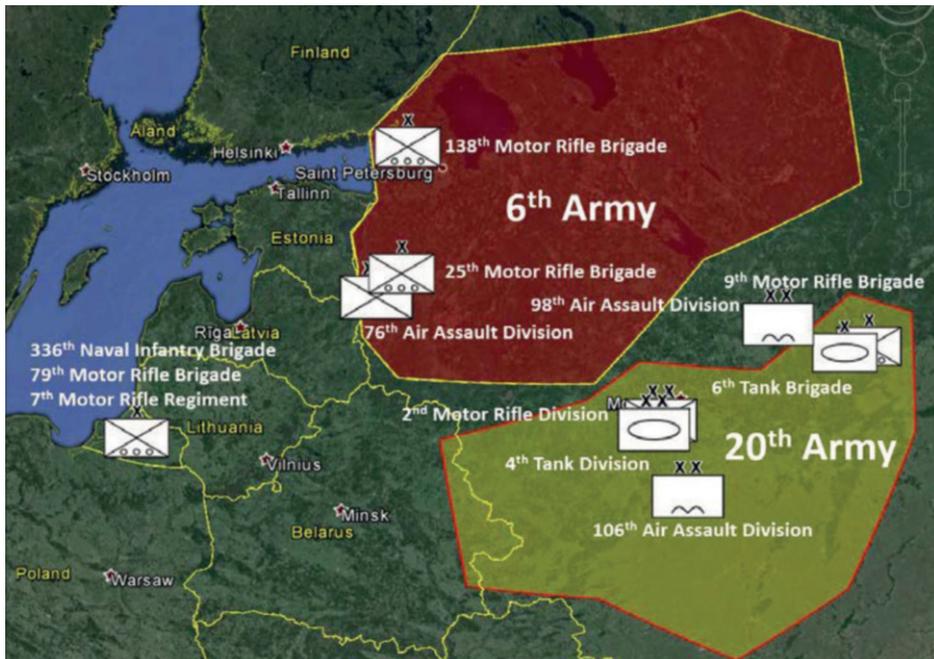


Figure 20. The Russian 20th (and 6th) Army

The debate over the number of troops participating in Zapad-2013 betrays not the lack of transparency of the Kremlin, but a lack of understanding of what the Russian General Staff was exercising. The ground forces participating in Zapad 2013 were an announced 11,720 from Russia and 10,500 from Belarus. These forces deployed a modest 80 tanks, 450 armored personnel carriers, 50 self-propelled artillery and

³⁰¹ Jögen Elfving and Peter A. Mattsson, “Zapad 2013: A Multifaceted Exercise With Unique Ingredients,” in Liudas Zdanavičius and Matthew Czekai, editors, *Russia’s Zapad 2013 Military Exercise: Lessons for Baltic Regional Security*, The Jamestown Foundation and National Defense Academy of Latvia: Washington, DC: December 2015, p. 21.

rocket launchers, and 90 planes and helicopters. The actual scale of the exercise, however, was far less modest than suggested by the announced numbers. For in addition to the approximately 22,300 ground forces, was 9,000 naval forces and 45,000 Interior Ministry Forces (*MVD* troops). At 76,3000 troops, Zapad-2013 made NATO exercises look meek. **A breakdown in the percentages of Armed Forces (40%) to *MVD* Forces (60%) is very revealing about how the Russian General Staff was preparing to offset its shortage of infantry when having to rely upon contract soldiers for its first echelon forces.**³⁰²

Two other aspects of *Zapad 2013* demand highlighting: **1) amphibious operations in the Baltic Sea were reinforced by two landing craft “which do not belong to the Baltic Sea Fleet: the *Azov*, from the Black Sea Fleet...and the *Georgij Pobedonosets* (of the Northern Fleet)”³⁰³; and 2) the participation of amphibious assault troops in the exercise suggests the General Staff anticipates one or more coastal assaults should an operational-strategic offensive be launched against the Baltic States.**³⁰⁴ Landing craft were also transferred to the Black Sea prior to Russia’s seizure of Crimea, probably with the expectation that Kyiv would resist the invasion, and possibly as contingencies for operations further west along Ukraine’s Black Sea coast. The transfer of amphibious landing craft between fleets should be seen as a key indicator of possible aggression. **Furthermore, the employment of amphibious operations in the *Zapad* exercise should be indicative of the Russian General Staff’s intention to employ assault landings as part of its operational-strategic plans for warfare in the Baltic region.**

³⁰² See Andrzej Wilk, “‘West 2013’: the Belarusian and Russian armies’ anti-NATO integration exercises,” *Ośrodek Studiów Wschodnich*, September 25, 2013, <http://www.osw.waw.pl/print/21040>

³⁰³ Elfyng and Mattsson, *ibid.*, p. 25. Also see Russian source at “Military training ‘*Zapad-2013*’ Continues,” September 16, 2013, <http://www.tvr.by/eng/news.asp?id=10270&cid=16>

³⁰⁴ See Roger McDermott, “Belarus and Russia Prepare *Zapad 2013* Military Exercise,” *Eurasia Daily Monitor*, Volume 10, Issue 71, April 16, 2013.

Snap Exercises

Since the appointment of Sergei Shoigu as Minister of Defense in November 2012, a series of “snap inspections” have been ostensibly performed to evaluate the readiness of the forces. The scale of these exercises— which have reached as many as 160,000 troops – go far beyond evaluating the troops, and are actually a means of evaluating the ability of the regime to militarily execute the political strategy of Vladimir Putin.

The snap Russian exercise that took place between the 16th and 21st of March 2015 focused on the rapid reinforcement of Russia’s outlying regions— the Kola Peninsula and the outlying Arctic isles, the Kaliningrad exclave, and occupied Crimea. “The exercise began as an operation in the far North centered on the Northern Fleet but was quickly expanded to encompass the entirety of the Russian Federation. The exercise would eventually involve 80,000 personnel, 12,000 pieces of heavy equipment, 65 warships, 15 submarines, and 220 aircraft.”³⁰⁵ **The snap exercise has moved from being an evaluative tool to becoming an instrument of military doctrine itself – providing both the accepted view on the nature of future conflict and guidance for the military in preparing the armed forces for war.**

While it might be easy to dismiss alarms that the “increasingly frequently snap military drills being carried out by Russia near its eastern European neighbors could be part of a strategy that will open the door for a Russian offensive on the Baltic States,” multiple Soviet precedents support such concerns. The 1973 Yom Kippur War unleashed by the Egyptians under Soviet tutelage is one such example. By compelling the Israelis to react to numerous exercises before the Israelis decided not to react because it was a holiday, the Egyptians obtained operational surprise despite the fact that the Israelis understood that an attack was possible.

³⁰⁵ Thomas Frear, “Anatomy of a Russian Exercise,” http://www.europeanleadershipnetwork.org/anatomy-of-a-russian-exercise_2914.html, August 12, 2015

Given that “in the first ten months of 2014, 40 Russian military vessels had been spotted near Latvian waters, compared with only one in 2010,”³⁰⁶ what would be the reaction to a Russian amphibious task force appearing in the Gulf of Riga? The Deputy Commander of NATO forces in Europe, and one of Britain’s most senior generals, “warned that Russian snap exercises could lead to a possible invasion of NATO Territory.”³⁰⁷ Because Russia has turned the snap check exercises into an almost routine activity, it is not unreasonable to worry that NATO could find itself confronted by having to organize a counterattack to a successful preemption or face a collapse of the Alliance.³⁰⁸

NATO and Partner-Nation Exercises

In early 2015, an Atlantic Council report called attention to the existence of a NATO-Russia “exercise gap” revealing, in the words of the authors, “a troubling disparity in magnitude.”³⁰⁹ While one of NATO’s largest exercises (Trident Juncture in 2015) topped out at approximately 36,000 troops,³¹⁰ Russia has conducted numerous exercises that ranged between 65,000 and 160,000 troops. The disparity is especially stark, given that NATO is an alliance of twenty-eight nations.

The Russian invasion of Ukraine and other ongoing military provocations in Europe³¹¹ have ignited discussions over Swedish and Finnish defense

³⁰⁶ Damien Sharkov, “Russian Snap Military Drill ‘Could Turn into Assault on Baltic Capital’,” February 23, 2015, accessed at <http://www.newsweek.com/russians-snap-military-drill-could-turn-quick-assault-baltic-capital-308752>

³⁰⁷ General Sir Adrian Bradshaw, as cited in Jeremy Bender, Military expert: Russian snap military drills could turn into assaults on Baltic capitals,” *Business Insider*, February 23, 2015, <http://www.businessleader.com/military-expert-russian-snap-military-drills-could-turn-into-assaults-on-baltic-capitals-2015-2>

³⁰⁸ Stratfor, “Russia Targets NATO With Military Exercises,” *Forbes*, March 20, 2015, <http://www.forbes.com/sites/stratfor/2015/03/20/russia-targets-nato-with-military-exercise/#2121dfd5498f>

³⁰⁹ Ian J. Brzezinski and Nicholas Varangis, “The NATO-Russia Exercise Gap,” the Atlantic Council, February 23, 2015

³¹⁰ Kyle Jahner, “NATO general: Russia fears media, skips Trident Juncture 2015 exercise,” *Army Times*, November 4, 2015.

³¹¹ “Estonia, Finland and Sweden have all had their airspace violated by Russian aircraft while Russia has seized an Estonian intelligence agent from Estonian soil and a Lithuanian fishing boat from international waters.” Richard Milne, “Swedes lean towards Nato membership, poll shows,” *Financial Times*, October 29, 2014.

alignments.³¹² While Sweden and Finland are said to have an informal understanding that they would only take a decision to join NATO at the same time, “Sweden and Finland also recently signed a so-called host nation support agreement that allows NATO troops to deploy in the only two countries in the Baltic Sea area not to belong to the military alliance.”³¹³ According to the Supreme Headquarters Allied Powers Europe (SHAPE) Public Affairs Office, “The purpose of this Memorandum of Understanding is to establish policy and procedures for operational, and logistics sites. The provision of Host Nation Support is aimed to sustain NATO-led forces in, or supported from, Host Nations during operations.”³¹⁴

Information Warfare Scenarios

Considering these parameters, it must be emphasized that the Russian Federation will not likely commit to an armed attack against any of its neighbors: Russian belligerence against any of its neighbors will rather be based upon principally covert destabilization campaigns backed by the *threat* of escalation. Indeed, emphasis in the Russian press about increasing Russian military capabilities should be read less as real threats of Russian military adventures and more as part of the narrative of centrally-directed destabilization efforts targeted to convince elites of a victimized country to believe that they lack any viable means of resisting Russian interests.

To illustrate the practice of new-generation warfare, some hypothetical scenarios are listed below to emphasize how these attacks may be either limited or large in scale. In all of these scenarios, only one or any

³¹² “European War Games: Responses to Russian Military Drills,” *STRATFOR Global Intelligence*, May 5, 2015.

³¹³ Richard Milne, “Swedes lean towards NATO membership, poll shows,” *Financial Times*, October 29, 2014. The way it was put by a senior Swedish official to the author in 2016 was that Sweden has an obligation to its former imperial subjects to not only provide security assistance but, first of all, to not place them at additional risk by seeking to enhance Swedish security unilaterally. While the relationship “is not a formal alliance,” they continue to pursue “increased cooperation between the [two] countries, including common use of military bases and improved communications.” “Sweden and Finland in joint military ‘war’ plan,” <http://www.thelocal.se/20150219/sweden-and-finland-in-joint-military-plan> (Feb 19, 2016).

³¹⁴ “Finland and Sweden sign Memorandum of Understanding with NATO,” September 5, 2014.

combination of these options could be used. These are not exhaustive lists of options.

1. Encouraging Pro-Russian Interests in Latgale

This first scenario features a fairly limited use of new-generation warfare.

Russian Problem Set: Since the dissolution of the Soviet Union, the population of eastern Latvia has become more Latvian and less Russian. Furthermore, those Russians living in eastern Latvia are more content to live outside Russia and are gravitating away from the immediate post-Soviet “passportless” status that for so long offered the Russians a seemingly legitimate complaint against the governments of the Baltic States. This eroding sociopolitical influence within Latvia raises long-term questions of Russian ability to divide and conquer Latvia in the event of a destabilizing amount of power being introduced into the region.

Tools of New-Generation Warfare:

NGOs: Have local institutions with Russian backing write about occasions of Latvian “discrimination” against local Russians, such as the use of the Latvian language even in Russophone communities.

News Control: Air stories of Soviet- or Tsarist-era patriotism and denigrate Latvia’s interference with these propaganda-driven memories. Initiatives such as the Immortal Regiment³¹⁵ can help to keep these memories fresh. This adds further momentum to the first tool.

³¹⁵ The Immortal Regiment (Бессмертный Полк) is a Russian initiative to have descendants of veterans of the Second World War (Great Patriotic War) and other historical Russian conflicts register what their ancestors did in the war and link up with their old commanders-in-arms as well as compile a detailed history database. It has been sponsored by a variety of public and private institutions across the former Soviet Union, but has been blocked by governments in the Baltic States and Ukraine for spreading Russian propaganda. When this occurs, Russian media highlights how those countries do not support the historical fight against fascism and allege that they have some fascist sympathy.

Airing of the Facts of Latvian Weakness/Russian Strength: This complements the second tool by indicating how Soviet-era strength has degenerated into modern vulnerability with no chance of being able to resist Russian power if it tried. This will ideally inspire defeatism among ethnic Latvians and their NATO allies while encouraging the local Russian population toward peaceful political victories that obviate any Russian need to intervene more ham-fistedly in Latvian affairs or undertake an armed attack against Latvia.

2. Dividing NATO Allies (Coalitional Warfare)

This second scenario features less an instance of increasing absolute Russian influence than it seeks to weaken the ability of the NATO alliance to respond together without seeking to provoke a conflict.

Russian Problem Set: The NATO alliance sets up Europe as a whole as a potential rival of the Russian Federation on various strategic issues. This potential challenge to key Russian interests can be obviated by reducing the willingness to cooperate among the rival coalition.

Tools of New-Generation Warfare:

NGOs: Research into specific bilateral rivalries within the annals of European history will enable the production of any variety of policy advice arguing for skepticism toward the interests of another NATO ally's motives. Though this is most often directed at Europeans to distrust Americans, it can also be used more locally, as in the historic rivalry between Poland and Lithuania.

News Control: Russian propaganda channels can encourage Europeans to inherently distrust US policy (e.g. by mocking President Donald Trump in relation to European values) or highlighting revisionist efforts among NATO states (e.g. Lithuanian policy to force ethnic Poles in Lithuania to take on Lithuanian names or Polish cavalier attitudes in debate toward Lithuanian sovereignty).

Conventional Threats: By releasing elements of Russian operational planning to the press, the hypothetical presentation

of a major armed force along the Polish border while crossing the Lithuanian border can provoke discussion of how Poland must defend itself before relieving the Baltic States from theoretical attack. This very discussion can raise all the distrust necessary to alter the debate to Russia's favor.

Nuclear Threats: Loose talk of nuclear targets against particular cities, such as Copenhagen or Warsaw, can emphasize to local populations the potential costs of intervening to prevent possible Russian action against other European countries. Emphasis can be added to show that Russia would not have had argument with Denmark or Poland (as in this example) if either country did not intervene against Russian actions elsewhere.

3. Demonstration of Power (Bullying)

This scenario features a more concrete instance of interference in the internal affairs of another country. Though all these scenarios can be considered "bullying," this probably best represents the true definition of the term.

Russian Problem Set: The governments of the three Baltic States take a decisively anti-Russian foreign policy stance and invites substantial NATO assets to take up residence in Estonia, Latvia, or Lithuania. This process, initiated during the NATO Summit in Wales and accelerated during the NATO Warsaw Summits is already in an advanced stage. The Russian strategic objective in this case is to discredit the governments of the Baltic States and drive other NATO member states policy considerations back from forward deployment by emphasizing its risks.

Tools of New-Generation Warfare:

News Control: Attack the ability of the governments of the Baltic States to protect themselves, including from their own citizens, let alone the Armed Forces of Russia. Dismissing the defensive capabilities of the defiant country out of hand can open discussion within NATO about how defensible these countries are in the first place.

Conventional Threats: Snap exercises called upon the borders of the Baltic States with the deliberate attempt to force them into partial or full mobilization and thereby incur certain economic costs that do not then materialize into a superior posture against a real Russian offensive.

Cyberwarfare: Using operatives in Russia, hackers can disrupt the administrative processes of the Baltic States, whether in the public sector or in the utility sector to provoke discussion of how the country is vulnerable to Russia despite the assertive nature of the government.

Spetsnaz Operations: Using special forces claiming to be disgruntled locals, take control of key infrastructure or else conduct coercive counter-intelligence operations with or without any need to retain the captured location or agent. Anything captured can be traded back or even simply given back: the objective is simply to embarrass the defiant governments.

In each of these scenarios, if matters get out of control (highly unlikely in the first two), the Russian Federation can simply reserve the ability to actually employ its Armed Forces. This is highly unlikely as the enemy would have to score a significant political victory against the Russian government while the Russian General Staff would need to calculate that the odds of a successful conventional operation would be appropriately high. Employing such an option would be emergency insurance at best.

CHAPTER 3

Assessment of the Range of Threat Contingencies

Phillip A. Petersen with Jānis Bērzins and Phillip A. Karber

A team of American analysts, including William S. Lund, divided the history of modern warfare into generations as an intellectual construct for examining the “changing face of war”.

The **First Generation** of Modern War (1648-1860) was marked by the employment of line and column tactics; battles were formal and the battlefield was orderly. Its significance was the establishment of a military culture, resulting in the separation between “military” and “civilian”. The **Second Generation** was brought about by the industrialization of warfare. Attrition by means of centrally controlled firepower in synchrony with the infantry — the artillery conquers, the infantry occupies—became the objective. **Third Generation** Warfare saw the development of sophisticated concepts of operations and the rise of maneuver warfare.

Warfare involved the development of theories such as the Russian “deep operations” intended to collapse the enemy’s defenses from within, and demonstrated by the use of *Blitzkrieg* during the German 1940 invasion of France and the Low Countries. The idea of rapidly penetrating deep into the enemy’s defenses, set off a rapid change in the means of conducting such “maneuver warfare” – from horses and wheeled vehicles to tanks and self-propelled artillery, and from airborne to heliborne forces. **Fourth Generation** Warfare represents, in some ways, a return to premodern warfare in that the state loses its monopoly of violence and war, and finds itself fighting non-state adversaries.

Some theorists have argued that the Fourth Generation represents “the end of history” in terms of this intellectual construct. It is their view that discussion about a Fifth Generation is a form of “hucksterism” directed

at selling self-proclaimed “revolutionary” technology.³¹⁶ While there is no denying the proclivity of members of the military-industrial complex and some strategic theorists to perceive a “revolution in military affairs” at the drop of a hat, it is important to inform oneself about how this discussion has been playing out in Moscow. Two of Russia’s stalwarts of military theory – Major-General Vladimir Slipchenko and General Makhmut Gareev – debated the utility of expanding the framework beyond four generations already in 2005. Slipchenko, having identified thermonuclear war as the essence of **Fifth Generation Warfare**, believed that the emergence of non-contact warfare was the optimal form of **Sixth Generation Warfare**. One of the premier Western scholars of Russian and Soviet military history, Jacob W. Kipp, has explained that

In the aftermath of Desert Storm in 1991, the late Major-General Vladimir Slipchenko coined the phrase “sixth generation warfare” to refer to the “informatization” of conventional warfare and the development of precision strike systems, which could make the massing of forces in the conventional sense an invitation to disaster and demand the development of the means to mass effects through depth to fight systems versus systems warfare. Slipchenko looked back at [Marshal of the Soviet Union Nikolai] Ogarkov’s “revolution in military affairs” with “weapons based on new physical principles” and saw “Desert Storm” as a first indication of the appearance of such capabilities. He did not believe that sixth generation warfare had yet manifested its full implications.³¹⁷

Whatever one chooses to call the current Russian construct for contemporary warfare, it is not focused on fighting non-state actors, even though it is focused on fighting a culture war against the West. Although the Putin regime does consider terrorism – especially terrorism used by its opponents – as a “security threat,” the Kremlin doesn’t perceive its struggle with violent non-state actors as “warfare”

³¹⁶ See, for example, “William S. Lind: Fifth Generation Warfare?”, *Military.com*, February 3, 2015.

³¹⁷ Jacob W. Kipp, “Russian Sixth Generation Warfare and Recent Developments,” *Eurasia Daily Monitor*, Volume 9, Issue 17, January 25, 2012.

in the classic sense. The so-called “competent authorities” are responsible for counterterrorism and, while the military forces may contribute to these efforts, the Russian Government has not tried to turn its armed forces into “peacekeepers.” When the Russian Armed Forces conduct “peacekeeping” missions, they are actually defending so-called partisan forces from destruction by their government (as Russian regular forces have done in Moldova’s Transdnier and Georgia’s Abkhazia and South Ossetia, and are now doing in Ukraine’s Donbas). It might even be out of deference to General Makhmut Gareev that Russian military theorists simply refer to the contemporary generation warfare without identifying a concrete number – simply calling it **New Generation Warfare**. Whatever its ultimate numerical designator, it is crucial that the West study, and come to understand, what the Russians intend under this moniker.

Putin’s ideological advisor Vladislav Surkov (under the pseudonym of Nathan Dubovitsky) coined the term “Non-Linear Warfare” in an article describing an international security environment where all fight against all.³¹⁸ **The central idea of the essay is that traditional geo-political paradigms no longer hold, and that cooperative structures like the European Union and NATO are perceived as being of less importance than the economic interests of individuals and corporations.** As proof, the Russians cite the individuals, companies, and whole countries that facilitate and benefit from illicit flows of resources from the post-Soviet space.

The Kremlin believes this means that Russia can get away with aggression³¹⁹ because financial security is perceived as more valuable than personal political security. It is a war of civilizations³²⁰ in which the

³¹⁸ Dubovitsky, N. (2014) Без Неба (Without the Sky). *Русский Пионер*, March 12, 2014. Available at <http://ruspioner.ru/honest/m/single/4131>.

³¹⁹ Pomerantsev, P. (2014). *Nothing Is True and Everything Is Possible: the Surreal Heart of the New Russia*. New York, NY: Public Affairs.

³²⁰ Vladimirov, A.I. (2012). *США— Главный Актёр Мировой Войны* (The United States – The Main Actor in the World War). Retrieved from: http://kadet.ru/lichno/vlad_v/USA_gl_aktor.htm.

Kremlin feels comfortable bullying its liberal opponents and mocking their moral ambiguity precisely because the democracies have failed to defend themselves.

During the Cold War, values such as self-determination, human dignity, and free expression were sufficient to motivate West European societies to man the ramparts in their defense. The politicians and the peoples of Germany and France were among the strongest voices in opposition to the dark age that threatened to snuff out the European political culture that had so successfully been transplanted to North America. The peace dividends that resulted in the withering away of the armed forces necessary to defend freedom of speech and assembly, an independent judiciary, parliamentarianism, international law, and other instruments that guarantee the autonomy of the individual human personality from traditional forces of society and the state has inevitably led also to a withering away of the commitment to those values. The military-political failure of NATO and European Union structures to anticipate their responsibilities – here we are talking about what Russian strategic theorists refer to as “sweet day-dreams of the liberal ‘end of history’” – led, in the words of these same Russian theorists, to the “castrat[ion of] its armed forces to the point that they were good only for...wars with weak and technically backward enemies.”³²¹

Decades of fighting insurgents in the Middle East have dulled the memory of the utility and decisive nature of modern armored combat. As explained by Charles K. Bartles of the Foreign Military Studies Office at Fort Leavenworth:

At a time when the U.S. military is cutting back on heavy conventional capabilities, Russia is looking at a future operational environment, and doubling down on hers. While the United States increases its special operations forces (SOF), Russia is keeping her SOF numbers relatively static and is entrusting her conventional forces to perform many SOF

³²¹ Dmitriy Sudakov, “Russia takes complete advantage of castrated armed forces of the West,” *Pravda.ru*, 13.11.2014.

*functions, not by necessity, but by design.*³²²

Current armored technology has provided machines with long range, lethal direct fire, capable of defeating virtually any target, from a highly survivable platform. Moreover, the modern tank is capable of traversing a wide variety of terrain types at high speed, firing as it moves, while accurately engaging targets. Unarmored or lightly armored forces cannot stand up to an armored assault for long. The Russians have not forgotten the value of tanks on the modern battlefield, as the following assessment from *Pravda* observes.

For example, let's consider the potential of conventional weapons of Russia and the West in the European Theater of Operations (ETO). In this area, it is generally believed that NATO is a lot stronger than Russia. Yet, a first encounter with reality smashes this misbelief into pieces. As is known, the main striking force, the core of combat power of the ground forces is tanks.

Noting that although “the Americans” once had

deployed 6,000 heavy Abrams tanks on the territory of the allied group...despite this, the combined potential of NATO was still significantly inferior. In early 2013, the Americans withdrew the last group of heavy Abrams tanks from Europe.

As opposed to the United States and its allies,

*Russia was not decommissioning its tanks. As a result, today Russia is the absolute leader in this regard. Therefore, the decisive superiority of Russian tanks has not gone anywhere since the times of the USSR. Here is another surprise. As for tactical nuclear weapons, the superiority of modern-day Russia over NATO is even stronger.*³²³

³²² Charles K. Bartles, “Getting Gerasimov Right,” *Military Review*, January-February, 2016, pp. 36-37.

³²³ Dmitriy Sudakov, “Russia prepares nuclear surprise for NATO,” *Pravda.ru*, November 12, 2014. What Sudakov is referring to is the *teatr voyennykh deystvii* (TVĐ); whereas during the Soviet

During the 1950s, when the West was unwilling to follow the Soviet Union onto the path of impoverishing its people in pursuit of absolute security by fielding the 96 divisions thought necessary to defeat Warsaw Pact aggression, “the solution was found in a move to deploy a group of US tactical nuclear weapons on the continent.” With the collapse of the Soviet Union and the West’s determination to reassure an insecure Moscow elite that it posed no security threat, the United States began to downsize its forces deployed in Europe and it eventually initiated a “security pivot” to the Pacific, while it also made it official policy to replace nuclear weapons with precision non-nuclear weapons. In the spirit of “no good deed goes unpunished,” Russian strategic theorists perceived this effort to lower the fear-factor that dominated the Nuclear Age – both for Moscow elites and for Western publics – as “having written off Moscow as a serious geopolitical rival.”³²⁴ Understanding liberalism as the threat it truly is to its feudal political culture, Russian security services unleashed its terror against its own citizens, foreign citizens, and even foreign governments. These same *KGB* veterans recruited a vanquished Soviet officer corps – humiliated by the complete defeat of its plans, leadership, and equipment by the American forces in Iraq – that was both ready and willing to accept the mission of reviving and integrating Eurasia. As observed by *The Economist*, “People in and around the Kremlin take Eurasianism seriously. They run the biggest country in the world. They have nuclear weapons. And they believe history is on their side.”³²⁵

Perceiving the West as having disrespected Russia by its policy of refusing to defer to the Russian elite’s primitive prejudices with regard to Slobodan Milosevic’s crimes against humanity, while

era there were three (Northwestern, Western, and Southwestern), they have been merged into what should best be translated as a single European Theater of Strategic Military Action.

³²⁴ Sudakov, “Russia prepares nuclear surprise for NATO.”

³²⁵ “Nationalism in Russia: The in crowd – A fine analysis of what motivates Vladimir Putin’s regime,” *The Economist*, April 23, 2016.

the West reduced its tanks and destroyed its tactical nuclear weapons, “Russia, feeling its own weakness, kept all tanks and tactical nuclear weapons.”³²⁶ By maintaining its self-perceived superiority in armored warfare and modernizing its theater nuclear forces, Moscow is now persuaded that it has deprived NATO of its ability to employ “tactical nuclear weapons...as a universal equalizer of forces.”³²⁷

To date, NATO countries have only 260 tactical nuclear weapons in the [European Theater of Operations]. The United States has 200 bombs...located on six air bases in Germany, Italy, Belgium, the Netherlands and Turkey. France has 60 more atomic bombs. That is pretty much it. Russia...has 5,000 pieces of different classes of [Theater Nuclear Weapons] – from Iskander warheads to torpedo, aerial and artillery warheads! The US has 300 tactical B-61 bombs on its own territory, but this does not change the situation against the backdrop of such imbalance. The US is unable to improve it either, as it has destroyed the “Cold War legacy” – tactical nuclear missiles, land-based missiles and nuclear-warheads of sea-based Tomahawk cruise missiles.³²⁸

Ironically, Russia sees no contradiction between the West’s long-term trend toward an increasingly non-threatening military posture and the Russian conviction that the demise of Russia is NATO’s primary military objective. Believing the West to be “weak in moral and ideological terms” in spite of “the overwhelming economic and military-strategic superiority of NATO, and most of all the USA,” the embargo and sanctions against Russia in response to its aggression against Ukraine are perceived as a “proof of their determination to push this matter to its

³²⁶ Sudakov, “Russia takes complete advantage of castrated armed forces of the West.”

³²⁷ Dmitrey Sudakov, “Russia prepares nuclear surprise for NATO,” *Pravda.ru*, November 12, 2014.

³²⁸ *Ibid.*

logical end at any cost.”³²⁹ Believing that the U.S. Army’s Special Forces “merit special comment”, Russian military theorists assert “the civil administration brigade...conducts secret operations in potential adversary countries to erode and subvert the government system from within by bribing officials of local authorities and urging them toward collaborationism, recruiting a ‘fifth column,’ and misinforming the population.”³³⁰

Considering such units to be best suited to “conduct hybrid operations” of “a new type of warfare...that was born and gained currency in the West in the early 2010s,”³³¹ these same Russian military theorists conclude that “a hybrid operation pulled off peacefully would be the best choice of hybrid operation for the enemies of modern Russia.”³³²

Understandably, force alone cannot achieve the goals of a hybrid operation against Russia today. The adversary would have first to do the groundwork by exposing the population and authorities of the territory where he wants to undertake unlawful operations to political brainwashing. On top of it all, the operation must be supported within the country by forces and organizations that could get the act together and head up the administration of the territory at issue, if need be.

*Establishing **nonprofit organizations** would be the preferred choice for achieving the goals of a hybrid operation. A nonprofit is an organization that is not driving itself hard to make a profit, in the first place, and to distribute it among its members. Here too, it is preferable to have a foreign nonprofit nongovernmental organization (NGO) that could best contribute to the attainment of the goal of a hybrid*

³²⁹ Konstantin Sivkov, “The Occupier’s Calculus: The Preparation for the Invasion of Russia is picking up Speed,” *The Military-Industrial Courier*, Issue No. 622, February 24, 2016, translated by Mark Voyger, NATO LANDCOM.

³³⁰ V. A. Kiselyov and I. N. Vorobyov, “Russia: Hybrid Operations: A New Type of Warfare,” *Military Thought*, Issue 2, 2015, p. 32.

³³¹ *Ibid.*, p. 28.

³³² *Ibid.*, p. 33.

operation. It can be established beyond the Russian Federation under the rules of a foreign country by foreign founders (participants) that are not government agencies. A foreign NGO could operate through its structural units – chapters, branches or representative offices.

A foreign nonprofit nongovernmental organization can draw its members from residents of the disputed territory and its political objectives will include discrediting the current government agencies, eroding the prestige and public standing of the law enforcement agencies, particularly the armed forces, buying up the mass media and conducting information operations purportedly to protect democracy, and nominating delegates for local government elections, and infiltrating them into the elected government authorities. Neutralizing army units is a wide-ranging effort, its success depending on the current situation.

*A far greater significance is attached to the possibility of hybrid operations being conducted by **private military companies (PMCs)**, for-profit organizations offering specialized services, such as guarding, protection (defense) of customers' assets, as far as involvement in military conflicts, intelligence collection, strategic planning, logistics, and consulting.³³³*

Perhaps after having, itself, conducted operations in Crimea with PMCs to “secure” the Crimean Parliamentary building so that only selected parliamentarians who were willing to collaborate in an effort “to cut off a part of another country’s territory by using a combination of coordinated political, diplomatic, information, propaganda, financial, economic, and military measures”³³⁴ it is possible to understand why Russian military theorists might conclude that “there is growing probability that Russian territory

³³³ Kiselyov and Vorobyov, “Russia: Hybrid Operations: A New Type of Warfare,” p. 33.

³³⁴ *Ibid.*, p. 28.

can be used as the battleground for a hybrid operation conducted peacefully or with the force of arms.”³³⁵ In a self-delusional manner, and consistent with *Zapad* exercises in the post-Soviet period, it is even insisted that

*the USA and NATO could actually decide to use their special operations forces, long-range cruise missiles, tactical and strategic aviation, for the physical neutralization of the Russian nuclear forces, above all their control centers and communications systems. This will be the first stage of the direct military invasion. Under the guise of rebels, NATO special operations forces could perform the tasks of neutralizing elements of the command and control system of even large cities, including Moscow.*³³⁶

In this case, it is asserted that

*the Ukrainian army will become the most important component of the NATO group of forces, naturally, after its complete reorganization by replacing its current personnel, especially the command, with members that are loyal to the West and to the current Ukrainian authorities, something that is actively being carried out nowadays.*³³⁷

It is even suggested that “the remaining part of the Ukrainian army will become one of the main components of the first echelon of NATO’s Land Forces, which they will try to use in the most dangerous avenues of approach in order to reduce the losses among the contingents from the European countries and the USA.”³³⁸

³³⁵ Ibid., p. 35.

³³⁶ Sivkov, “The Occupier’s Calculus: The Preparation for the Invasion of Russia is picking up Speed.”

³³⁷ Ibid.

³³⁸ Ibid.

The Theoretical Development of Russian New Generation Warfare

A misguided effort to communicate the essence of Russia's New Generation Warfare ultimately led NATO to adopt "Hybrid Warfare" as the official name for the concept.³³⁹ The seminal work about Hybrid Warfare is Hoffman's "Hybrid Warfare and Challenges." The author developed the idea that a hybrid strategy is based on tactically employing a mix of instruments, resulting in being difficult to fully understand and establish a proper strategy to deal with it. The main challenge that the term was intended to convey was that state and non-state actors would employ technologies and techniques in a multi-mode confrontation. It may include exploiting modern capabilities to support insurgent, terrorist, and criminal activities, the use of high-tech military capabilities, and cyber warfare operations against political, economic and social targets.³⁴⁰ Another attempt to explain New Generation Warfare proposed calling it "Russian Full-Spectrum Conflict."³⁴¹ There is a clear conceptual evolution from the first time the term appeared until the concepts of Low-Intensity Conflict, 6th Generation Warfare, and Network Centric Warfare were merged with Asymmetric Warfare as Russian New Generation Warfare's formative elements.

Russian military theorists such as Chichkan, Velesov, Kononov, Tsygichko, Kuralenko, Dulnev, Slipchenko, Vladimirov, Gerasimov, Chekinov, Bogdanov, and others have struggled with the task of developing a conceptual framework that would provide structure to the discussion over how to interpret the nature of contemporary and future warfare.

It should have been no surprise that General Gerasimov's 2013 article discussing his view of modern warfare was called "The Value of Science in Prediction." **Russians expect their military theory to provide the political and military theoretical basis on which to construct military art and military strategy.** Methodologically, this tradition is rooted in

³³⁹ This can probably be attributed to the results of Major General Gordon "Skip" Davis using the term "hybrid warfare" during a briefing referring to the current Russian war against Ukraine.

³⁴⁰ F. Hoffman, "Hybrid Warfare and Challenges," *Joint Forces Quarterly*, issue 52, 2009.

³⁴¹ O. Jonsson and R. Seely, "Russian Full-Spectrum Conflict: An Appraisal After Ukraine," *The Journal of Slavic Military Thought*, Volume 28, Issue 1, 2015, pp. 1-22.

Marxist Dialectics and Historical Materialism: its quest is to find the laws governing warfare, in its definite form and as a reflex of a specific historical period. As **continuous development is implicit, the laws of warfare are constantly changing, transitioning from one form to another.** This results in a dialectical process, where the old (thesis) collides with the new (antithesis) resulting in the new (synthesis). The idea of prediction as a task for Military Science reflects the necessity to anticipate the future development of the general laws of warfare, to be the foundation for “improving the forms and means of applying groups of forces (rethinking) the content of the strategic activities of the Armed Forces.”³⁴²

The development of the concept of New Generation Warfare can be organized chronologically, showing how the development of the Western strategy and tactics was interpreted by Russian military theorists. Although it would not be correct to presume that the Western way of conducting warfare determined how Russian military thinkers developed their understanding of the nature of contemporary and future war, Western influence is undeniable. Both the strategy of Low-Intensity Conflict and Network Centric Warfare were originally developed in the United States, while 6th Generation Warfare is very much Slipchenko’s understanding of the strategic implications of “Operation Desert Storm” and the NATO bombing in Yugoslavia. Therefore, while the concept of Hybrid Warfare is a foreign concept for the Russian military, Russian New Generation Warfare does reflect the influence of their own understanding and interpretation of Western military strategy. This explains why many observers who claim that there is nothing new in Russian operations in Ukraine are unable to adequately explain the course of those operations. The term *hybrid* became very popular exactly because it can mean the combination among many forms of conducting warfare.

The first paper to use the term “New Generation War” in the Russian

³⁴² General Valery Gerasimov, “The Value of Science Is in the Foresight: New Challenges Demand Rethinking the Forces and Methods of Carrying out Combat Operations,” *Military-Industrial Courier*, February 26, 2013.

military literature was Chichkan and Velesov's article "Some Questions of Employing Special Operations Forces" in 1992. According to that paper, NATO military experts expected that new generation wars would be characterized by opposing sides avoiding physical destruction of enemy troops. Instead, the main tactical objective would be to undermine the enemy military from the inside. Special Operations Forces would play the main role, by surprise, initiative, speed and coordination of actions by axis and in depth, combined with the skilled use of attack and maneuver capabilities of weapons and military hardware, with the terrain, time of day, and weather conditions.³⁴³

The term appeared again in an article discussing the emergence of new forms of military conflict. This time, the author used the term "New Generation" to refer to Lind's concept of "Fourth Generation Warfare." The article described in detail the Israeli experience in fighting terrorism and the role of non-state actors as the new paradigm for modern warfare.³⁴⁴ In the same year, General Vladimir Slipchenko used the term again, this time to refer to his idea of Sixth Generation Warfare or high-tech non-contact war. The term reappeared in 2001 when Colonel L.A. Kononov used it to discuss nuclear proliferation. His argument was that warfare was experiencing a process of transformation. The technique of warfare was changing radically from low-contact to non-contact facilitated by precision and information weapons, as was demonstrated during the 1991 Desert Storm operation and in Yugoslavia in 1999. To those states that were not in a position to field high-tech weaponry, the natural alternative was to develop nuclear capabilities, a cheaper expedient, as way for guaranteeing military security.³⁴⁵

Shortly thereafter, Tsygichko and Piontkovskiy applied this term to wars based on precision weapons aiming at the enemy's industrial potential. They proposed that the damage of destroying infrastructure is as unacceptable as the use of nuclear weapons. They added that the

³⁴³ Chichkan and Velesov, "Some Questions of Employing Special Operations Forces," 1992.

³⁴⁴ Pankov, 1997.

³⁴⁵ Col. L. A. Копонов, "Геополитика и Безопасность: О Проблеме Ядерной Опасности в Современном Мире [Geopolitics and Security: on the Issue of Nuclear Threat in the Modern World]", published in Военная Мысль [Military Thought], Issue 1, 2001, pp. 4-11

importance of nuclear deterrence is overestimated; high-precision weapons, in their view, were a new means of deterrence and a new factor of stability for Europe.³⁴⁶

In 2002, the “New Generation” term was employed by Matveev to define what he called the new American concept of warfare. According to him, it represented a qualitative improvement as a result of the information revolution’s warfare potential.

Dominant maneuver would involve the ability of combined forces to achieve a positional advantage with high speed and with a rapid pace of hostilities. This ability would be determined by the possibility of rapid concentration of widely dispersed forces and means. Sometimes, in peacetime, with proper conduct of information operations, convincing the adversary of such possibility might be enough to serve as a deterrent.³⁴⁷ Also in 2001, Zolotarev discussed how a new generation of warfare would result from the confrontation of two vectors of social and political development. On the one hand was the development of a pyramidal world model, topped by the United States and NATO; and, on the other, a model based on multipolarity led by Russia, China, India, and other countries. Wars in this system would be the result of a sharp aggravation of the contradictions between existing and established centers of power. Wars would tend to be contained on local levels as opposed to escalating to global conflicts. These new generation wars would be conducted based on **five main principles**.³⁴⁸

According to Zolotarev, the first of these principles was the use of strategic non-nuclear deterrence established by capabilities to inflict

³⁴⁶ Vitaliy N. Tsygichko and Andrey A. Piontkovskiy, “Возможные Вызовы Национальной Безопасности России в Начале XXI Века [Possible Challenges to Russia’s National Security in the Beginning of the XXI Century]”, published in *Военная Мысль [Military Thought]*, Issue 2, 2001, pp.63-70.

³⁴⁷ V. Matveev, “Перспективная Военная Стратегия США и России [The Future Military Strategy of the U.S. and Russia]”, published in *На Страже Заполярья [At the Guard of the Polar Region]*, Issue 32, April 4, 2002.

³⁴⁸ Zolotarev, “Место Действия— Вся Планета, Главное Действующее Лицо— Оружие Новых Поколений [The Stage— The Entire Planet; the Main Protagonist— Weapons of New Generation]”, published by *Независимое Военное Обозрение [Independent Military Overview]*, Issue 31, September 9, 2002.

unacceptable damage with high-precision conventional weapons. Second, there would be a gradual change in the objectives of warfare, and, accordingly, in the conduct of war. The main objective of employing military force would not be the occupation of the enemy's territory, but forcing the enemy to accept political demands without significant losses. The third principle was the expansion of the theater of operations from land, sea and air to include space. The fourth principle was the transition from guided weapons to managed armed struggle and controlled warfare. The fifth principle was the complementary relationship between dominance in the informational sphere (armed forces and weapons management) and supremacy in the air and cosmic domains. As a result, the balance of power in land and sea would become more favorable, achieving overall quantitative and qualitative supremacy in all forces and instruments. In general, these principles would result in the gradual transition from fire exposure to the enemy force to its defeat by high-precision weapons. At the same time, there would be an increase in the proportion of mobile troops.

A 2002 article by Bogdanov incorporated data from NATO and US military operations into Russian Military Theory and placed the new generation of war within the framework of initial periods of war. Its conclusion was **that new generation wars would be characterized by the defeat of the enemy by non-contact means targeting vital military and economic structure.**³⁴⁹

Since the main objective of the initial period of war is to paralyze the enemy's military and civilian leadership, the adversary's structures of command and control are its primary targets. The first step involves special operations of disinformation including through diplomatic channels, public and private radio and television channels, transmission of fake orders and commands by the channels of state and military control. Obtaining information superiority over the enemy is fundamental to this phase.

³⁴⁹ S. Bogdanov, "Вопросы Теории. Опыт Минувшего, Прогноз на Будущее [Questions of Theory. Experience from the Past; Forecast for the Future]," Вестник Военной Информации [Herald of Military Information], Issue 11, 2002.

The second step emphasizes attacks with high-precision intercontinental conventional weapons and weapons based on new physical principles, electronic warfare, information weapons, and man-made ecological catastrophes. The intent of these operations is to assure superiority in command and control and dominance in aerospace and terrestrial areas. Bogdanov believed that this step must be executed as quickly as possible, with the aim of paralyzing the adversary. The expected result was the disorganization of enemy forces, break down of state governing mechanisms, demoralization of the adversary's population, destruction of the military-industrial complex, and, ultimately, the impeding of any form of mobilization and economic restructuring to fulfill war needs.

In Bogdanov's view, the initial period of New Generation Wars lasting between 45-60 days ³⁵⁰ would seek to achieve political-military and strategic objectives *before* mobilization of conventional forces.

In his 2003 article, Bogdanov further elaborated his views on future wars, which, he believed, would feature **four main phases**. **The first phase**, starting several months before the main attack, would create favorable political, military, and economic conditions by instigating confrontations— informational, psychological, ideological, diplomatic, and economic.

The second phase is a public opinion campaign with a strong emphasis on the population of the targeted country. It promotes a narrative legitimizing the planned military action (for example, as a preemptive measure necessary to combat tyranny and to restore democracy). Massive propaganda is unleashed to foment discontent among the military and civilian population of the country under attack, challenging its political leadership's legitimacy; weakening their willingness to engage in resistance; and paralyzing the country's political and military administrative system. Creating chaos and making the country ungovernable it establishes the environment conducive to the aggressor's ability to achieve the desired political and military goals in a

³⁵⁰ S. Bogdanov, "Вопросы Теории. Опыт Минувшего, Прогноз на Будущее [Questions of Theory. Experience from the Past; Forecast for the Future]," *Вестник Военной Информации* [Herald of Military Information], Issue 11, 2002.

short time and with little or no significant human losses.³⁵¹

The third phase, as envisioned by Bogdanov, involves extensive intelligence activities to determine and verify the coordinates of the most important government and military facilities and objects. All forms, methods, power and intelligence assets are applied with a special emphasis accorded to space, radio and radio engineering, electronic, diplomatic, intelligence and industrial intelligence.

The fourth phase, military action, would begin, as a rule, with an air-space operation lasting several days. The first day of this operation would aim to conduct air and missile strikes with precision weapon systems to damage the most important military and industrial facilities; to destroy the military and political leadership; and disrupt the supply of energy and water, forcing the opponent's forces to capitulate. Subsequently, ground forces would enter enemy territory to destroy any remaining major military units still resisting and to occupy critical facilities. The main form of ground operations would be special operations focused on crushing the remaining pockets of resistance by the adversary.³⁵²

As can be seen from the preceding overview of literature, Russian New Generation Warfare is not something new in and of itself.³⁵³ Rather, it is the particular understanding of Russian military thinkers about the evolution of military art in its contemporary application that qualifies this approach to warfare as something innovative. **Four themes** have

³⁵¹ S. Bogdanov, "Особенности Начального Периода Войн Прошлого и Будущего [Characteristics of the Initial Period of Wars of the Past and the Future]," published by Военная Мысль [Military Thought], Issue 5, 2003, pp. 17-20

³⁵² S. Bogdanov, "Особенности Начального Периода Войн Прошлого и Будущего [Characteristics of the Initial Period of Wars of the Past and the Future]," published by Военная Мысль [Military Thought], Issue 5, 2003

³⁵³ Although NATO has adopted the term "Hybrid Warfare" as its term of reference for Russia's New Generation Warfare, a number of analysts have strenuously objected. See, for example, the well-argued case by Michael Kofman, "Russian Hybrid Warfare and Other Dark Arts," <http://warontherocks.com/2016/03/russian-hybrid-warfare-and-other-dark-arts/> Kofman's more important contribution is to argue that all the Western concern about the "hybrid" or low-violence level activities distracts from the fact that Russia prepares for, practices, and conducts "high-end conventional" operations. This is exactly the point made in Phillip Karber and Lt. Col. Joshua Thibeault, "Russia's New-Generation Warfare," *Army*, July 2016.

emerged and persisted over the last 25 years. The first and most important theme is **Asymmetric Warfare**, which forms the main base sustaining the other three; the second theme is the American strategy of **Low Intensity Conflict** as developed by the Pentagon's Joint Special Operations Command; the third theme is the Russian understanding and theoretical development of **Network-Centric Warfare**; and the fourth theme is General Vladimir Slipchenko's **Sixth Generation Warfare**. There is yet the additional instrument of implementation – **Reflexive Control** – that gives Russian New Generation Warfare its insidious effectiveness in that only when it is applied to New Generation Warfare does the latter become fully operational.

Asymmetric Warfare

An often-ignored aspect of the Russian military art is the idea of asymmetry in warfare. As Vladimir Putin put it himself in 2006, "Quantity is not the end.... Our responses are to be based on intellectual superiority. They will be asymmetrical and less expensive."³⁵⁴

In its classic definition, asymmetry is the strategy of a weaker opponent to fight a stronger adversary. The main idea is, as Clausewitz put it, that war "...is not merely a political act but a real political instrument, a continuation of political intercourse, a carrying out of the same by other means. (...) The political design is the object, while war is the means, and the means can never be thought of apart from the object."³⁵⁵

Since the objective of war is political, the instruments of warfare may be military as well as non-military. A direct attack might not be necessary for territorial occupation and annexation. The warfare, therefore, may be direct, indirect, or both at the same time.

As observed by Checkinov and Bogdanov in 2010, "the terms 'asymmetrical approach' and 'asymmetrical actions' are close in substance to the concepts of 'indirect actions' or indirect action

³⁵⁴ V. V. Putin as quoted in S. G. Chekinov and S. A. Bogdanov, "Asymmetrical Actions to Maintain Russia's Military Security," *Military Thought*, Number 1, 2010, p. 8.

³⁵⁵ Clausewitz 2000, p. 280.

strategy”³⁵⁶ in that asymmetrical strategy is now directed, first of all, at neutralizing the enemy without resorting to arms (by indirect actions), in the first place, by information superiority.³⁵⁷ In their opinion, “today, **information operations** (indirect actions) have reached a point in development where they **can take on strategic tasks.**”³⁵⁸ Thus, “asymmetrical actions relying on the efficiency of modern high-precision conventionally equipped strategic weapons systems, supported by subversive and reconnaissance groups is a persuasive enough factor for the enemy to cease military operations on terms favorable for Russia.”³⁵⁹ By 2010, Chekinov and Bogdanov had become sufficiently confident that “implementation of the full range of asymmetrical measures to practically maintain military security will enable Russia’s military and political leaders to be more flexible in responding to various critical situations.”³⁶⁰

In its campaign against Ukraine, Russia has fully operationalized asymmetric warfare, using direct and indirect, and linear and non-linear tactics alongside conventional symmetric methods. They have been synchronized in support of political, psychological, and information strategies. Its initial effectiveness is corroborated by the fact that in just three weeks, and without a shot being fired, the morale of the Ukrainian military had been broken and the 190 bases on the Crimean Peninsula had surrendered or been seized. Instead of relying on a mass deployment of tanks and artillery, the Crimean campaign featured fewer than 10,000 assault troops – mostly naval infantry, already stationed in Crimea, backed by a few battalions of airborne troops and *spetsnaz* commandos – against 16,000 Ukrainian military personnel. After blocking Ukrainian troops in their bases, the Russians started the second operational phase, consisting of psychological warfare, intimidation, bribery, and internet/media propaganda to undermine resistance, thus

³⁵⁶ S. G. Chekinov and S. A. Bogdanov, “Asymmetrical Actions to Maintain Russia’s Military Security,” p. 7.

³⁵⁷ *Ibid.*, p. 8.

³⁵⁸ *Ibid.*

³⁵⁹ S. G. Chekinov and S. A. Bogdanov, “Asymmetrical Actions to Maintain Russia’s Military Security”

³⁶⁰ *Ibid.*, p. 9.

avoiding the use of firepower.

Low-Intensity Conflict

Russian military theorists have paid close attention to the evolution of the Pentagon's concept of low-intensity conflicts as "a political-military confrontation between contending states or groups below conventional war and above the routine, peaceful competition among states."³⁶¹

In 2010, Checkinov and Bogdanov observed that

*The danger of catastrophic consequences of hostilities fought on a varying scale with the use of highly effective modern and next-generation weapons, not to say weapons of mass destruction, points to the need **for nonmilitary measures of interstate confrontation to be employed more actively to end armed conflicts and local wars**, and the role and significance of these measures continues to rise.*³⁶²

*A special point to be made here is **that military security today depends on all other forms of security** (above all, political, economic, and informational, to name but a few), and, **at the same time, is a foundation they need to be built on.***³⁶³

The two Russian military theorists also believe that "**support for the war aims by society in a country at war, that is legitimization of war, is critical in winning victory.**" This is a decisive factor for both the stronger and weaker opponent.³⁶⁴

With his military theorists asserting that

...many military and political leaders in countries that have advanced most in military and economic development (above all, the U.S. and its allies) are carefully concealing the true

³⁶¹ Chichkan & Velesov 1992; Department of the Army Headquarters, 1993, p. 1-1.

³⁶² S. S. Chekinov and S. A. Bogdanov, "Asymmetrical Actions to Maintain Russia's Military Security," *Military Thought*, Number 1, 2010, p. 2.

³⁶³ *Ibid.*, p. 3.

³⁶⁴ *Ibid.*, p. 5.

reasons for the armed conflicts they have initiated behind the screen of more decent purposes such as the need to “spread democracy,” “protect the weak,” or fight terrorism,”³⁶⁵

the Russian Chief of the General Staff Valery Gerasimov drew the appropriate conclusion for development of his own forces and strategy.

In 2013, Gerasimov wrote that

the very “rules of war” have changed significantly. The use of non-military methods to achieve political and strategic objectives has in some cases proved far more effective than the use of force. [...] Widely used asymmetrical means can help neutralize the enemy’s military superiority. These include the use of special operations forces and internal opposition to the creation of a permanent front throughout the enemy state as well as the impact of propaganda instruments, forms and methods which are constantly being improved.³⁶⁶

Viewing contemporary propaganda not just in terms of the technological tools of the information revolution, but as result of revolution in cognitive psychology which they trace back to a 1956 meeting at the Massachusetts Institute of Technology, Russian theorists posit that the Americans developed new geo-political concepts of superiority based upon creating chaos as an instrument of U.S. national interests. The promotion of democracy and market reforms by the U.S. is perceived as a mechanism for the replacement of values and ideology and is a part of the network of new generation warfare made possible by the widespread distribution of information technology in the early 2000s. The presumption for the Russians was – “as always, the first ‘users’ of [the] new technologies” were “organized crime and secret services, plotting regime change in other countries.” By associating the U.S. “secret services” use of new generation networking technologies with

³⁶⁵ *Ibid.*, p.2.

³⁶⁶ As quoted in H. Reisinger and A. Golts, “Russia’s Hybrid Warfare: Waging War below the Radar of Traditional Collective Defense,” *NATO Research Paper*, Research Division – NATO Defense College, Rome, Issue 105, November 2014, p. 2.

“the criminal carnival” enabled by technology-driven activism, Russian theorists make it explicit that “the testing of the use of a flash mob in the ‘color revolutions’ in the former Soviet Union has shown its high effectiveness as an instrument of regime change.” In the same vein, technologies and services facilitating international money transfers are linked to recruit payments; and access to the Internet and social media as organizing platforms.

As evidence that “the United States paved the way for a new level of global conflicts,” Russian theorists point out that “Deputy Assistant Secretary of State Daniel Baer, head of the Bureau of Democracy, Human Rights and Labor, which funded the report [Guide to Help Internet Users in Repressive Countries], described the tools to overcome censorship, ‘the most important way of supporting digital activists and other people...living in an atmosphere of repression...’”³⁶⁷ Such views are spread even among highly educated and well-traveled Russians who perceive “a concerted Western drive to force regime change on Russia through political subversion and to undermine Russia’s distinctive historically religious, and social identity in order to weaken resistance to a global US-led hegemony.”³⁶⁸

The 3rd Moscow Conference on International Security organized by the Russian Ministry of Defense focused squarely upon color revolution as a national security threat. At the conference, Russian military officers asserted “color revolution is a new form of warfare, taking the form of armed struggle according to the rules of military engagement but, in this case, involving all available tools.”³⁶⁹ The Chief of the Operations Directorate on the Russian General Staff, Vladimir Zarudnitskiy shared his view on operational implications of Western efforts to support democracy and justice:

First, [...] the military potential of countries organizing the

³⁶⁷ Igor Sund, “Controlled Chaos,” *Svobodnaia mysl*, Number 7, 2012.

³⁶⁸ Mark Galeotti, *Putin’s Hydra: Inside Russia’s Intelligence Services*, European Council On Foreign Relations, May 2016, p. 5.

³⁶⁹ Russian Defense Minister Sergey Shoigu as quoted in Reisinger and Golts, “Russia’s Hybrid Warfare: Waging War below the Radar of Traditional Collective Defense,” p. 2.

overthrow of the enemy government is used for open pressure. The goal of this pressure is to prevent the use of the security forces to restore law and order. Then, with the deployment of the opposition hostilities against government forces, first foreign countries begin to give the rebels military and economic aid. Later, a coalition of countries [...] can start a military operation to assist the opposition in the seizure of power.³⁷⁰

As it has in other areas of military thought, the breakup of Yugoslavia played an important role in shaping the Russian views on low intensity conflicts. After Slobodan Milošević bankrupted the national treasury of the Socialist Federal Republic of Yugoslavia during his turn of the rotation of the Yugoslav Presidency among the constituent republics, the other republics decided to secede and Milošević sent the Serbian-dominated army to suppress the separatism. Slovenia managed to quickly break away and Croatia would win its independence as well, but the Serbs continued to wage what was widely recognized to be a campaign of genocide against the Republic of Bosnia and Herzegovina, and the autonomous province of Kosovo within Serbia.

As much as the United States preferred the Europeans to deal with the dissolution of Yugoslavia, it eventually had to step into the lurch through the employment of NATO. Moscow perceived this action as a new form of “regime change.” Subsequently, the Americans were perceived to have supplanted overt operations with covert operations via “the installment of a political opposition through state propaganda (e.g., CNN, BBC), the Internet and social media, and nongovernmental organizations (NGOs).” Instead of the overt armed strikes, the U.S. were perceived to employ a more adaptive use of force including indirect and asymmetric methods such as special operators, private soldiers, cyber/propaganda warriors, undeclared conventional forces, and peacekeepers. As the strategy of American “military interventions”

³⁷⁰ Chief of the General Staff Main Operations Directorate Vladimir Zarudnitskiy, as quoted in H. Reisinger and A. Golts, “Russia’s Hybrid Warfare: Waging War below the Radar of Traditional Collective Defense,” *NATO Research Paper*, Research Division – NATO Defense College, Rome, Issue 105, November 2014, p. 2.

were perceived to transition toward “color revolutions” the Russian military began to perceive “war as being something much more than military conflict.”³⁷¹

6th Generation Warfare

Discussions of the Russian operational art in the fifth period by Mattsson and Eklund see long-range and electronic weapons and information warfare as decisive (despite long-standing objections by General Makhmut Gareev to the idea that it will be possible “to fight a war with only long-range systems”³⁷²). They argue that “the fact that operational concepts are discussed in terms of *sixth generation* warfare, and operational art as being in its *fifth period* need not lead to military theoretical confusion.”³⁷³ Mattsson and Eklund summarize the Russian conclusions as follows:

*The type of war the Russian armed forces must be prepared for in the next decade at the latest has one rule and four distinct signifiers. The rule is that active planning and preparation will give the strategic initiative, and the strategic initiative will lead to victory. The signifiers are: 1) Superiority via information operations, 2) Superiority in the air and in space, 3) Superiority at sea and on the ground via the ability to strike with precision, and 4) Consolidation of military success with diplomatic and other political means.*³⁷⁴

In the assessment of Russian military theorists, there has been “a significant change in the place, role and relation of different forms of struggle as part of modern warfare.”³⁷⁵ When examples of “unconventional warfare” in armed struggle are evoked, they highlight the ways in which information warfare shaped both the course and outcome of Russia’s invasion of South Ossetia in August 2008, and

³⁷¹ Charles K. Bartles, “Getting Gerasimov Right,” *Military Review*, January-February 2016, p. 34.

³⁷² Gareev as quoted in Peter A. Mattsson and Niklas Eklund, “Russian Operational Art in the Fifth Period: Nordic and Arctic Applications,” *Revista de Ciências Militares*, Volume 1, 2013, p. 38.

³⁷³ Mattsson and Eklund, p. 44.

³⁷⁴ *Ibid.*, p. 42.

³⁷⁵ Vladimir Babich, “On military science and war,” *Military Thought*, Number 12, 2009.

emphasize electronic warfare (EW). As confirmed by the experience of modern warfare and armed conflicts, EW has finally moved beyond one of the types of combat support.”³⁷⁶ There is now a general agreement among Russian military theorists that the

*computerization of society in general and military affairs in particular...has opened broad opportunities in creating high-performance automated control systems, the development of qualitatively new high-precision weapons, including functionally integrated systems and reconnaissance, targeting and destruction, as well as in improving the forms and methods of combat operations.*³⁷⁷

Network Centric Warfare

Russian military theorists have concluded that “the fast spread of information and telecommunications systems that started off in the late 1990s has contributed significantly to the evolution of the views the armed forces’ top leaders in developed countries held on the various approaches to the conduct of combat operations.”³⁷⁸

In their view,

it all began with the adoption of the Network Centric Warfare concept in the United States. The concept goes by the name of Network Centric Capability in NATO’s joint armed forces; Network Enabled Capability in the United Kingdom; Info Centric Warfare in France, and by a variety of other names elsewhere. In principle, whatever their names, the concepts are built around the idea that the combatants are linked to one another through a common information environment

³⁷⁶ Ibid.

³⁷⁷ P. A. Doulov and V. I. Orlovsky, “Key Changes in the Nature of Armed Conflict During the First Third of the XXI Century,” *Courier of the Academy of Military Sciences*, 2015, Issue 1.

³⁷⁸ Yu. Ye. Donskov, V. I. Zimarin, and B. V. Illarionov, “Design of Electronic Warfare Systems Based on the Armed Forces’ Network Centric Concepts,” *Military Thought*, Volume 2, 2015, p. 47.

*that, in military experts' judgment, enhances the armed forces' efficiency in action many times over.*³⁷⁹

The core of Network Centric Warfare is creation of seamless and highly survivable, flexible, and self-recovering (mobile adaptive networks) communications for troop control focused at the “ground forces’ tactical echelon, particularly the brigade and below” and allowing “teamwork between troops fielded by different branches” on land, at sea, and in the air.³⁸⁰ Russian military theorists conclude that “information technologies, weapons, military equipment, reconnaissance and electronic warfare capabilities, and automated control and communications systems have had their effect on the forms and methods of modern-day operations.”³⁸¹ In their opinion, a “new type of armed struggle derives from the network-centric pattern of military operations that will henceforth be conducted within an integrated combat environment combining all realms of armed struggle in synchronism, be interrelated and continuous under a single command in a shared information and communications medium.”³⁸² They believe that “all military experts today are at one in the view that wars in the age of new information and other high technologies will be different essentially in nature from wars fought in the last century.”³⁸³ Citing predictions of “a gradual decline in the role of the strategic balance of nuclear forces in deterring aggression and preventing military and economic chaos,” it is argued that “not even the strategic and regional nuclear deterrent will be able to” prevent “a new large-scale war involving the use of conventional and high-precision weapons in several theaters of operations, including regions next door from Russia” “because it will be fought with new-generation weapons that can achieve the war goals without much loss of life or property for their

³⁷⁹ *Ibid.*

³⁸⁰ Yu. Ye. Donskov, V. I. Zimarin, and B. V. Illarionov, “Design of Electronic Warfare Systems Based on the Armed Forces’ Network Centric Concepts,” *Military Thought*, Volume 2, 2015, p. 48.

³⁸¹ Colonel S. G. Checkinov and Lt. General S. A. Bogdanov, “Russia: Initial Periods of Wars and Their Impact on a Country’s Preparations for a Future War,” *Military Thought*, No. 4, 2012, p. 20.

³⁸² *Ibid.*

³⁸³ *Ibid.*, p. 22.

user.”³⁸⁴ They anticipate that “the new weapons systems will be just as effective as nuclear weapons, but will be more tolerable from the political and military viewpoint.”³⁸⁵

New generation warfare weapons emphasize quality over quantity. They feature “future-oriented technologies” such as “stealth technology, integrated information environment, high-precision weapons launched from a variety of platforms.”³⁸⁶ **Speed and efficiency replace attrition warfare.**

Russian military theorists are persuaded that their enemies will use all their power “to disorganize public, military, battlefield control” to make Russia “unmanageable and sink it into chaos, and then disable decisively” its economy and “armed forces by powerful electronic operations and massed strikes by pilotless high-precision weapons launched from every realm in a global or regional information struggle and network-centric operations.”³⁸⁷ They claim that “Western military experts believe that the loss of up to 50% of the military control personnel and capabilities would have an adverse effect on the adversary’s will to fight on and force him to cease resistance, actually the purpose for which network-centric military operations are undertaken, in the first place.”³⁸⁸

The operational-strategic implication of this Russian assessment of the overall trend of military-technical aspects of operational-tactical communications led them to the conclusion that operational success will require **making the opponent’s adaptive communications networks primary targets of electronic attack.** This can only be accomplished, in their opinion, “by moving elements of the information support and electronic attack subsystems closer to the nodes of the mobile adaptive network, possibly by using airmobile vehicles, airdropped, backpacked,

³⁸⁴ *Ibid.*

³⁸⁵ *Ibid.*, p. 21.

³⁸⁶ Colonel S. G. Checkinov and Lt. General S. A. Bogdanov, “Russia: Initial Periods of Wars and Their Impact on a Country’s Preparations for a Future War,” *Military Thought*, No. 4, 2012, p. 19.

³⁸⁷ *Ibid.*, p 23.

³⁸⁸ *Ibid.*, p. 20.

or other EW capabilities.”³⁸⁹ Cutting the length of the response time of an electronic warfare system “between detection of a target and an electronic attack launched to put it out of operation”³⁹⁰ will require “developing and bringing into service an adaptive control subsystem that is capable, no matter how fast the pace of combat is, of exploiting advantages of the hierarchic and networked structures.”³⁹¹

Reflexive Control

Although various Russian military theorists define reflexive control in various ways, the American Soviet/Russian-specialist Tim Thomas has explained it to English-speaking Western audiences in a clear and understandable way: “Reflexive control is defined as a means of conveying to a partner or an opponent specially prepared information to incline him to voluntarily make the predetermined decision desired by the initiator of the action.”³⁹² As Thomas explained, “a ‘reflex’ itself involves the specific process of imitating the enemy’s reasoning or imitating the enemy’s possible behavior and causes him to make a decision unfavorable to himself.”³⁹³ The idea is, through intimate knowledge of the intended victim’s intellectual construct for organizing data – usually referred to as the “filter” – to feed him information that will lead him to draw incorrect inferences such that he makes decisions “inappropriate to a given situation. Reflexive control methods are varied and include camouflage (at all levels), disinformation, encouragement, blackmail by force, and the compromising of various officials and officers.”³⁹⁴

³⁸⁹ Donskov, V. I. Zimarin, and B. V. Illarionov, “Design of Electronic Warfare Systems Based on the Armed Forces’ Network Centric Concepts,” *Military Thought*, Volume 2, 2015, p. 53.

³⁹⁰ *Ibid.*, p. 52.

³⁹¹ Donskov, V. I. Zimarin and B. V. Illarionov, “Design of Electronic Warfare Systems Based on the Armed Forces’ Network Centric Concepts,” *Military Thought*, Volume 2, 2015, p. 53.

³⁹² Timothy L. Thomas, “Russia’s Reflexive Control Theory and the Military,” *Journal of Slavic Military Studies*, 17, 2004, p. 237. Russian Colonel S. A. Komov, for example, “renamed reflexive control over the enemy as ‘intellectual’ methods of information warfare.” See Thomas, p. 248.

³⁹³ *Ibid.*, p. 241.

³⁹⁴ *Ibid.*, p. 242.

Russian Major General (ret.) M. D. Ionov, over time, has convinced his colleagues on the value of reflexive control. As noted by Thomas,

Ionov identified four basic methods for assisting in the transfer of information to the enemy to promote control over him. These methods, which serve as a checklist for commanders at all levels, include:

Power pressure, which includes: the use of superior force, force demonstrations, psychological attacks, ultimatums, threats of sanctions, threats of risk (developed by focusing attention on irrational behavior or conduct, or delegating powers to an irresponsible person), combat reconnaissance, provocative maneuvers, weapons tests, denying enemy access to or isolating certain areas, increasing the alert status of forces, forming coalitions, officially declaring war, support for internal forces destabilizing the situation in the enemy rear, limited strikes to put some forces out of action, exploiting and playing up victory, demonstrating ruthless actions, and showing mercy toward an enemy ally that has stopped fighting.

Measures to present false information about the situation, which include: concealment (displaying weakness in a strong place), creation of mock installations (to show force in a weak place), abandoning one position to reinforce another, leaving dangerous objects at a given position (the Trojan Horse) concealing true relationships between units or creating false ones, maintaining the secrecy of new weapons, weapons bluffing, changing a mode of operation, or deliberately losing critical documents. The enemy can be forced to find a new target by conflict escalation or de-escalation, deliberate demonstration of a particular chain of actions, striking an enemy base when the enemy is not there, acts of subversion and provocation, leaving a route open for an enemy to withdraw from encirclement, and forcing the enemy to take retaliatory actions involving an expenditure of forces, assets,

and time.

Influencing the enemy's decision-making algorithm, which includes the systematic conduct of games according to what is perceived as routine plans, publishing a deliberately distorted doctrine, striking control elements and key figures, transmitting false background data, operating in a standby mode, and taking actions to neutralize the enemy's operational thinking.

Altering the decision-making time, which can be done by unexpectedly starting combat actions, transferring information about the background of an analogous conflict so that the enemy, when working out what seems feasible and predictable, makes a hasty decision that changes the mode and character of its operation.³⁹⁵

Although he decided to refer to reflexive control as “intellectual methods of information warfare”, Russian Colonel S. A. Komov supported Ionov's assessment of the value of manipulating one's opponent by identifying basic tools for accomplishing it:

Distraction, by creating a real or imaginary threat to one of the enemy's most vital locations (flanks, rear, etc.) during the preparatory stages of combat operations, thereby forcing him to reconsider the wisdom of his decisions to operate along this or that axis;

Overload, by frequently sending the enemy a large amount of conflicting information;

Paralysis, by creating the perception of a specific threat to a vital interest or weak spot;

Exhaustion, by compelling the enemy to carry out useless

³⁹⁵ M. D. Ionov, “On Reflexive Control of the Enemy in Combat,” *Military Thought*, Issue 1, January 1995, as quoted in Thomas, “Russia's Reflexive Control Theory and the Military,” pp. 244-245.

operations, thereby entering combat with reduced resources;

Deception, *by forcing the enemy to reallocate forces to a threatened region during the preparatory stages of combat operations;*

Division, *by convincing the enemy that he must operate in opposition to coalition interests;*

Pacification, *by leading the enemy to believe that pre-planned operational training is occurring rather than offensive preparations, thus reducing his vigilance;*

Deterrence, *by creating the perception of insurmountable superiority;*

Provocation, *by forcing him into taking action advantageous to your side;*

Overload, *by dispatching an excessively large number of messages to the enemy during the preparatory period;*

Suggestion, *by offering information that affects the enemy legally, morally, ideologically, or in other areas; and*

Pressure, *by offering information that discredits the government in the eyes of its population.*³⁹⁶

Even prior to the end of the Soviet era some U.S. analysts had concretely identified the messages that had been identified by the Soviets for delivery in the implementation of reflexive control:

- transfer of an image of the situation: providing an opponent with an erroneous or incomplete image of the situation.
- creation of a goal for the opponent: putting an opponent in a position in which he must select a goal in our favor (for example, provoking an enemy with a threat to which he must

³⁹⁶ S. A. Komov, "About Methods and Forms of Conducting Information Warfare," *Military Thought*, Number 4, 1997, as quoted in Thomas, "Russia's Reflexive Control Theory and the Military," pp. 248-249.

rationally respond).

- forming a goal by transferring an image of the situation: feigning weakness or creating a false picture.
- transfer of an image of one's own perception of the situation: providing an opponent with false information or portions of the truth based on one's own perception of the situation.
- transfer of an image of one's own goal: a feint by a basketball player is a classic example where you change the enemy's perception of where he thinks you are or are not going.
- transfer of an image on one's own doctrine: giving a false view of one's procedures and algorithms for decision-making.
- transfer of one's own image of a situation to make the opponent deduce his own goal: presenting a false image of one's own perception of the situation, with the accepted additional level of risk.
- control of a bilateral engagement by a third party.
- control over an opponent who is using Reflexive Control: exploiting opportunities identified as imitation of the initiators own process of Reflexive Control.
- control over an opponent whose doctrine is game theory.³⁹⁷

As Tim Thomas observed, "Russians believe that a single global 'information space' is emerging, which could allow a country to exploit this space and alter the global balance of power."³⁹⁸ Their perception of the "informatization" of an increasingly globalized security environment allows for the employment of indirect approaches to offsetting U.S. Superiority, including asymmetrical information strategies, that manifest

³⁹⁷ Clifford Reid, "Reflexive Control in Soviet Military Planning," *Soviet Strategic Deception*, edited by Brian Dailey and Patrick Parker, Stanford, California: The Hoover Institution Press, 1987, as quoted in Thomas, "Russia's Reflexive Control Theory and the Military," p. 250.

³⁹⁸ Timothy Thomas, "The Russian View of Information War," Ft. Leavenworth, KS, Foreign Military Studies Office, 2000; Michael Crutcher, "The Russian Armed Forces at the Dawn of the Millennium," Carlisle, PA: U.S. Army War College, Carlisle, 2000, as quoted in Steve Tatham, *U.S. Governmental Information Operations and Strategic Communications: A Discredited Tool or Use Failure? Implications for Future Conflict*, Carlisle Barracks, PA: United States Army War College Press, December 2013, p. 54.

itself as soft force – a term coined by Moscow State University lecturer Andrey Pronin.³⁹⁹

When the Republic of Georgia moved closer to NATO, having received no assurance of eventual membership in the organization, the Russians effectively employed Reflexive Control to pressure and provoke a Georgian President Mikhail Saakashvili⁴⁰⁰ (whose psychology they had carefully profiled) to imbue a false sense of the situation. Employing soft force, the accompanying Russian Information Operation (IO) effectively shaped the Georgian President's image of the situation, caused paralysis in the West, and divisions among Georgian and Western decision-makers. In a 2010 briefing to NATO, the Norwegian Ministry of Defense

...concluded that the Russian IO Campaign was focused on four strategic objectives: (1) discredit and criminalize Georgian operations as genocide; (2) undermine the credibility of President Saakashvili; (3) legitimize its own invasion of South Ossetia; and (4) use CNO to cut Georgian communications at the critical early stages of the campaign. The desired end state, according to the Norwegians, was twofold: to prevent NATO intervention and support for Georgia, and to solidify internal domestic Russian support.⁴⁰¹

The Initial Stage of Period: Context as the Key

As early as the 1930s, Soviet military theorists had “reached the conclusion that future wars would, as general rule, begin without a

³⁹⁹ See Tatham, *U.S. Governmental Information Operations and Strategic Communications: A Discredited Tool or Use Failure? Implications for Future Conflict*, p. 55.

⁴⁰⁰ Charles Blandy, “Georgia & Russia: A Further Deterioration in Relations,” ARAG Paper, Swindon, United Kingdom: UK Defence Academy, August 22, 2008, as discussed in Tatham, *ibid.* pp. 55-56.

⁴⁰¹ “Russian Strategic/Operational Influence Activities in Georgia 2008,” Briefing to NATO Senior Officers Info Ops Orientation Course, September 23, 2010, as quoted in Tatham, *U.S. Governmental Information Operations and Strategic Communications: A Discredited Tool or Use Failure? Implications for Future Conflict*, p. 55.

formal declaration of war.”⁴⁰² **Stealth in training and the sudden onset of offensive operations are perceived by Russian military planners as fundamental to strategic success.** It is assessed that a sudden transition to the offensive can increase the combat potential of the attacking force between 1.5 and 2 times. To be successful, once initiated, the offensive must continue to deceive the defender as to the main axes of attack, causing him to defend operationally insignificant terrain and, subsequently, surround the defending enemy forces to prevent them from withdrawing to defensive positions in depth. The employment of operational maneuver groups on disparate directions allows for the defeat of the defenders forces’ counterattacks by means of strikes against their flanks and rear.⁴⁰³

Russian military theorists have concluded that

the initial period of new-generation wars will be decisive for the outcome of a war. It will comprise subversion and provocations against the defending country’s military and political leaders; bribing of top officials of that country to make it ungovernable, reduce it to a state of chaos, and force it to give up resistance; launching of information operations, including technological information and psychological information attack, electronic and fire operations initiated as electronic operations; an aerospace operation and continuing air force attacks from all directions to the full depth of the country under attack; and electronic noise generated by the attacking country a few hours before the start of the aerospace operation/.../

With the start of aggression, information operations and electronic fire strikes disorganize the government system, demoralize the population and personnel of the armed

⁴⁰² Colonel S. G. Checkinov and Lt. General S. A. Bogdanov, “Russia: Initial Periods of Wars and Their Impact on a Country’s Preparations for a Future War,” *Military Thought* No. 4, 2012, pp. 16-17.

⁴⁰³ Mikhail Ilyich Orlov, “Certain Aspects of Preparing and Conducting Offensive Operations in Modern Conditions,” *Military Thought*, No. 12, 2010.

forces of the country attacked, and make its military and political leaders unable to rally their forces for repelling aggression/.../

The length of the initial period of a new-generation war will probably depend on the attacker's end goals, the scale of military operations (a local or regional large-scale war)...⁴⁰⁴

Whether conducting offensive operations (i.e., initiating overt attacks with Russian forces officially or conducting combat actions with troops formally on “leave” or “holiday” – as Russia did during its 2015 Donbas Winter Offensive against Ukraine) or counter-offensive operations (employing armed forces to preclude the target from successful defense – as Russia did in executing fire strikes against Ukrainian President Poroshenko’s Plan B counteroffensive in the Donbas during the Summer Offensive 2014), “Russia is going to resolve its problems in interstate relations by using every kind of deterrence – by *force* or *peacefully*, or by nonmilitary and indirect (asymmetrical) actions.” As observed earlier, Russian military theorists view one’s ability to restrain an enemy as the by-product of one’s readiness to fight:

*Any forms and methods will do to **deter** the aggressor by **force**, such as, in the face of direct threat of attack, demonstrative deployment of a powerful defensive task force in the area where the aggressor is expected to strike; an ultimatum with a caution that Russia would (in the event of war) use nuclear weapons immediately and exercise no restraint in employing high-precision weapons to destroy strategically vital objectives on the aggressor’s territory; and planning and conduct of an information campaign to mislead the adversary about Russia’s readiness to beat off aggression.⁴⁰⁵*

⁴⁰⁴ Colonel S. G. Checkinov and Lt. General S. A. Bogdanov, “Russia: Initial Periods of Wars and Their Impact on a Country’s Preparations for a Future War,” *Military Thought* No. 4, 2012, p. 25.

⁴⁰⁵ *Ibid.*, p. 27.

Thus, restraint is fostered to prevent an opponent from taking actions to resist Russian actions. In this Orwellian intellectual twist on the *Star Trek* franchise Borg⁴⁰⁶ psychological operations, “all resistance is not only futile, it is aggression.”

*Since the mass media today can stir up chaos and confusion in government and military management of any country and instill ideas of violence, treachery, and immorality, and demoralize the public...the information struggle must be conducted to gain and retain information superiority and create conditions for the government to achieve its political objectives in peacetime, without using armed forces.*⁴⁰⁷

While “information warfare in the new conditions will be the starting point of every action now called the new type of warfare in which broad use will be made of the mass media and, where feasible, the global computer networks (blogs, various social networks, and other resources,” Russian military theorists perceive future “wars will be resolved by a skillful combination of military, nonmilitary, and special nonviolent measures.” However, “far from losing any of its significance, military force will take on added importance. It will lend weight to other types of war.”⁴⁰⁸

Evaluation of the Threat Relative to Local Force Capabilities and Terrain Limitations

The Russian perception of Kaliningrad’s vulnerability is well known, and appears to remain a focus of Russian General Staff operational planning. Acknowledging the problematic nature of Soviet-era territorial

⁴⁰⁶ The Borg were a fictional alien race appearing in the *Star Trek* franchise comprised of a collection of species that were captured and turned into cybernetic beings capable of overpowering less “hybrid” races, hence, their argument for surrender to them was the refrain “resistance is futile.”

⁴⁰⁷ Checkinov and Bogdanov, “Russia: Initial Periods of Wars and Their Impact on a Country’s Preparations for a Future War,” p. 27.

⁴⁰⁸ S. G. Checkinov and S. A. Bogdanov, “A Forecast for Future Wars: Meditations on What They Will Look Like,” *Military Thought*, Number 4, 2015, p. 93

acquisitions for contemporary Russia, military theorists recognize that “war can be triggered in” Russia’s Western Military District by “territorial claims on Russia (its Kaliningrad and Pskov regions) by Western countries and growing competition, including an armed conflict, for Arctic resources.”⁴⁰⁹ This sensitivity is reflected in the *Zapad* series of operational-strategic scale exercises conducted since 1999.

Given that a land corridor connecting Russia with the exclave of Kaliningrad remains a priority; that such a corridor would require a rail link to move troops, equipment, and supplies; and that the most direct route would press through Lithuania’s current and pre-World War II capitals, **Latgale would inevitably feature as the center of gravity in Russian planning.** Plans for a destabilization campaign among the ethnic Russians and Russian-speaking Latgalian people would likely underpin the Russian General Staff’s planning, providing plausible cover, no matter how unlikely these peoples are to support a revolt against the central Latvian Government in Riga. As a means of providing political cover for Russian aggression and excuse for other Europeans to argue that Latvia is a “far off place of which we know little,” Latgale fits the bill from the “cover” standpoint. Therefore, any **appearance of a lack of NATO solidarity undermines deterrence.**

Furthermore, **NATO force levels in the Baltic States have direct implications for regional stability.** Even limited Allied presence in the Baltic States eliminates any pretense about Russian intervention as anything less than an invasion. Presence in the Baltic States of Allied forces from countries that are nuclear capable further enhances deterrence by introducing the possibility of nuclear confrontation in response to any attack on the Baltic States.

From an operational perspective, all three Baltic States have been confronted with the challenge of defending along multiple fronts. For all three countries, especially given the “political coup-type” invasions in 1940 by the Soviet Union, protecting national capitals from special

⁴⁰⁹ Checkinov and Lt. General S. A. Bogdanov, “Russia: Initial Periods of Wars and Their Impact on a Country’s Preparations for a Future War,” p. 22.

operations is a priority. On the other hand, border areas become critical in “collective” defense because the terrain along the border favors the defender (See Figure 21). Like cascading water, Estonian failure to defend its southeastern territory leaves Latvia more vulnerable; Latvian failure to defend Latgaliya leaves Lithuania more vulnerable.

Estonia faces yet another risk related to the critical role Saaremaa could play if the Russians emplace air defense assets on the island.

Force-to-space ratios in the Baltic States are low by historical standards (nine times lower than was the case on the Central Front during the Soviet period). It’s important to note that although the Russians have forward deployed substantial forces (See Figure 22) on all three of its Strategic Directions in the European Theater of Strategic Military Operations, Ukraine occupies sufficient Russian forces to shift NATO’s Eastern Center of Gravity to Poland (See Figure 23).

Given the Russian forces deployed in Kaliningrad (to include substantial air defense and naval assets), however, NATO’s initial line of communication (LOC) would be restricted to land routes across Germany through Poland and northward up the entire three Baltic States before it reaches Tallinn (See Figure 24). The single LOC between Warsaw and Tallinn is greater than 800 kilometers (this constitutes a frontgate 80% of the strategic depth of a theater in Russian planning).

Terrain as the Context

As observed elsewhere, “in an era of high technology and instant communications, the role of geography in the formation of strategy and politics in international relations can be undervalued.”⁴¹⁰ This is even more true about the role of geography in operational art. To paraphrase Jakub J. Grygiel, **operational-strategic success depends above all on the ability to match operations and tactical-technical capabilities to the terrain over which competing forces contend.** “Globalization, in other

⁴¹⁰ Jakub J. Grygiel, *Great Powers and Geopolitical Change*, Baltimore, Maryland: The Johns Hopkins University Press, 2006.

words, has not detached the interactions of states from geography.” As explained by Grygiel,

...the argument that globalization frees states from traditional geostrategic concerns ignores the role of the United States in the world. To use again the example of maritime trade, the current “freedom” of the sea lanes is a result, not of globalization, but of the American preponderance of power, which keeps trade routes open to global traffic, thereby allowing U.S. allies to ignore geopolitics and the need to pursue a foreign policy directed at protecting and controlling key trade routes open to global traffic, thereby allowing U.S. allies to ignore geopolitics and the need to pursue a foreign policy directed at protecting and controlling key trade routes.⁴¹¹

Analyses of Zapad operational-strategic scale military exercises run by the General Staff in 1999, 2009, and 2013 suggest the vulnerability the Russians feel about the “exposed” operational position of their military forces in the geo-strategic space they refer to as Kaliningrad Oblast. In all three of these military exercises the Russian General Staff trained for the “relief” of their forces stationed in this exclave territory unilaterally seized at the conclusion of the Second World War.

Once the strategic necessity for the establishing of a land corridor between Russia proper and Kaliningrad during any potential conflict in north-east Europe today is accepted, application of General Staff planning norms to the geography of the region (here defined as Estonia, Latvia, Lithuania and Poland) helps identify the **probable main operational axis of advance within the Western Strategic Direction of the European TSMA (Theater of Strategic Military Action) during Russian offensive operations** (See Figure 24).

⁴¹¹ Jakub J. Grygiel, *Great Powers and Geopolitical Change*, Baltimore, Maryland: The Johns Hopkins University Press, 2006., p. 166.

The predilection of the Russians for operational-strategic movement by rail, offers essentially two options for the relief of Kaliningrad: 1) the direct route from Belarus running south of the main Vilnius – Kaunas highway, and south-west from Kaunas to Kaliningrad; or 2) the route from Pskov south-west through Rēzekne and Daugavpils, as well as the rail route from Moscow to Rēzekne and from Smolensk to Daugavpils and then through central Lithuania to Kaliningrad.



Figure 21: The “boggy” terrain (marked in blue) is reflected in Russian military forces in the region having more helicopter and fewer tanks that would otherwise be found in Russian units. The Russian formations, in this region also are predominately “tracked” as opposed to being wheeled, again reflecting the poor trafficability of the terrain for off-road movement.

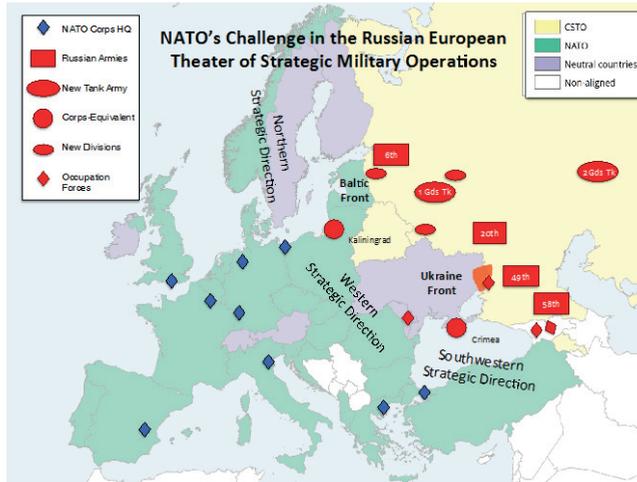


Figure 22. While the Russian Army is short of well-training infantry, a substantial number of the forces it does have are also fixed in place by Ukraine's 25 brigades.

Eastern Front & NATO Theater Strategy

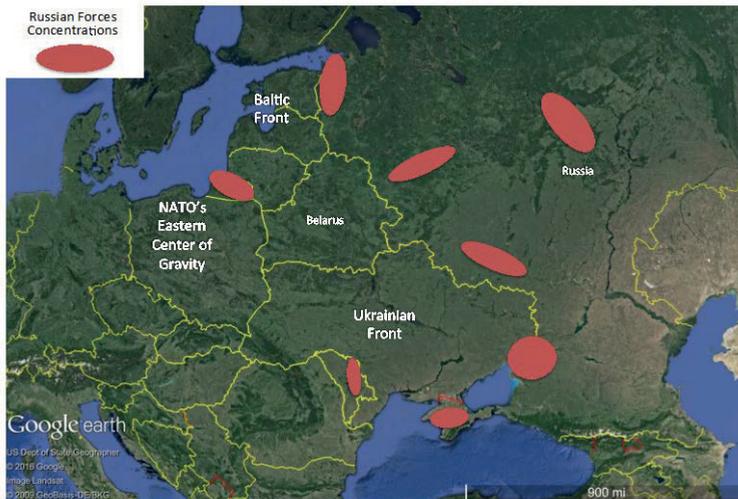


Figure 23. Eastern Front and NATO Theater Strategy

Regardless of whether all of Latgale can be “liberated” prior to an overt commitment of Russian forces through Lithuanian territory to provide a ground corridor to Kaliningrad, the Russian 6th Army would be prepared to follow an axis of advance Pytalovo – Rēzekne – Dugavpils, and then

phase lines between Roskiškis and Zarasai, Kupiškis and Utena, Panevėžys and Ukmergė, and Siauliai and Kėdainiai. The axes would then likely pivot at Kėdainiai, to sweep through Raseiniai and across the A1/E85 highway to a link up at Taruage with forces coming out of Kaliningrad and a major operation to cross the Nemunas River to destroy the root of the NATO line of communications into the Baltic States from across the Polish border (See Figure 25). The Russians are well aware of the potential consequences of crossing into Poland, but may resort to it anyway, especially if the Poles attempt to enter Kaliningrad.

The theater features water-dominated terrain running south from the Gulf of Finland to Lake Peipus through Latgale and eastern Lithuania to northern Poland and west to the Baltic Sea (See Figure 21). This terrain is not “good tank country.” The ubiquitous “water-barriers” along with patches of heavy forests offer viable options for successful defense by indigenous forces without heavy equipment such as tanks.

By keeping to the northwest of this low terrain, Russian armored forces would have to only transit some thirty kilometers of this lake-dominated terrain. Given that Military Geography is one of the major fields of study in Russian Military Science, it should be no surprise that the Russian General Staff is particularly interested in the infrastructure of the Baltic region. There have been press reports that “according to secret NATO documents Russian diplomats studied bridges in southeastern Estonia” during the Spring of 2015.⁴¹²

⁴¹² Baltic News Service, Tallinn, Estonia, May 6, 2016.

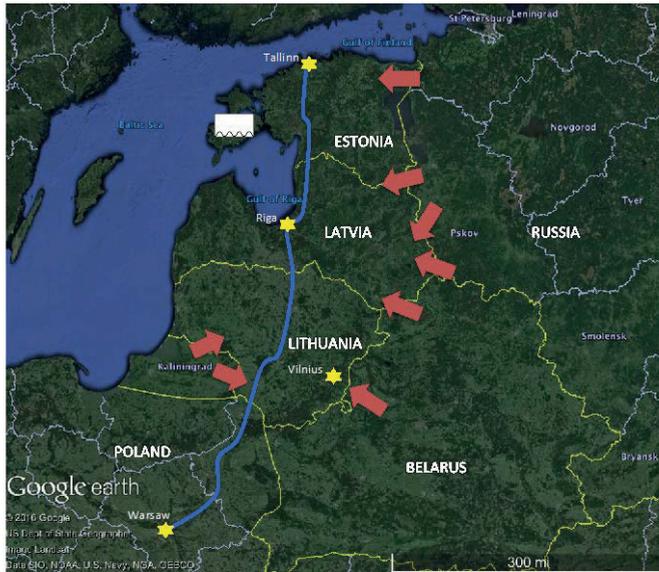


Figure 24: Probable Main Operational Axes into the Baltic States. It is important to understand that the Operational Axes do not necessarily reflect the routes Tactical Axes could move along to seize control of Operational Axes. Operational Axes are zones through which Lines of Communication move.



Figure 25: The main reinforcements in the first 30 days would be the Allied Rapid Reaction Corps, which would most likely deploy via rail through Germany and Poland to the Baltic States.

Maneuver by Fires

The lessons learned by Russian operational planners on the nature of contemporary warfare from observations of military conflicts by the leading Western countries, is that **ground combat is usually conducted in the absence of clearly defined lines of contact of the opposing forces, the presence of open flanks, as well as frequent breaks or even large gaps in operations.** Fire strikes are conducted beyond the range of the defender's fire weapons and air defenses. Fire destruction of the enemy, therefore, no longer depends on closing with the enemy ground forces, but "in the fire damage at the operational level, focusing on the destruction of critical facilities, management system, intelligence, and electronic warfare, logistics, and the most important means of strikes."

Given the emphasis on movement, especially in difficult terrain, it is important to dwell for a moment on how **modern technology has provided fundamentally new means of maneuver.**

Russian military theorists recognize how the principles of military art have evolved from the maneuver of troops during the First World War to the maneuver of armored and mechanized forces during the Second World War to the maneuver of fires by air, missile and artillery forces in the contemporary period. These fires, it has been observed, must be exploited by the maneuver of ground and airborne troops in order to strike the flanks and rear of the enemy. This objective reality required the resurrection of Army Aviation "in its qualitative and quantitative composition."

Thus, **of the three major components of combat – fire, maneuver, and assault forces – today it is the first two that are most decisive,** and the assault forces "will only be used to complete the defeat of the enemy." It is the maneuver of fires with the use of precision-guided munitions – whether delivered by aviation, missiles or artillery that will prepare the attack and increase its strength.

The key to success is to cause the opponent to disperse his resources and thereby establish "superiority in manpower and equipment in selected areas." As has been observed, "all this is possible only in

conditions of absolute dominance in the aerospace and information space” while avoiding prolonged confrontation with the ground forces of the enemy. In fact, the objective is not to seek “the final defeat of the enemy forces,” but the main effort at the operational level is directed at “the destruction of critical facilities management systems, intelligence and electronic warfare, logistics and the most important means of strikes.” In this context of “expanding the spatial scope of military operations,” the Russians continue to recognize “that the conquest of the air remains a critical operational task and determines the success of ground forces operations.” Concretely put, “unlike past wars, in the operations of the end of the 20th and beginning of the 21st century, the superiority in tanks and manpower does not create the decisive prerequisites for the defeat of the enemy if there is no control of the air and fire superiority over him.”⁴¹³

Beyond the necessity of, at the very least, a benign air environment and superiority in fires, both of which can be obtained via “the achievement of stealth training and the sudden onset of the offensive,” it is critical to “surround the defending enemy forces in the tactical zone and prevent them from departing to defensive positions in depth.” At the same time, rapid penetration of the defense can cause the enemy to abandon his forward defensive positions under the very threat of encirclement, thus contributing to the general collapse of the enemy’s tactical zone such that the defender loses operational cohesiveness.⁴¹⁴

Areas Where US Military Aid is Critical

Certain modern military technology capabilities that can assist in the defense of the Baltic States are simply too costly for any but the wealthiest of nations. Foremost among these is intelligence, surveillance and reconnaissance capability. For Russia to mount an invasion of the Baltic States, it would have to assemble forces in advance along the western Russian border (and perhaps in Belarus). This takes time, and should be observable from space. This intelligence can provide early

⁴¹³ Mikhail Ilyich Orlov, Certain Aspects of Preparing and Conducting Offensive Operations in Modern Conditions,” *Military Thought*, No. 12, 2010.

⁴¹⁴ Ibid.

warning of a Russian attack, and may occur far enough in advance to allow NATO to deter the aggression through rapid mobilization of NATO forces and means.

Strategic air power can be used to disrupt or destroy Russian logistics sources of supply and supply routes. Heavy bombers using precision guided weapons can make a significant impact on the land campaign if used against the right target set. Nuclear deterrence may be the only way to prevent Russian use of tactical nuclear weapons. Possession and a doctrine for employment of nuclear weapons in response to a first use on the battlefield may prevent their use by the Russians in the first place.

CHAPTER 4

Campaign Assessment

Nicholas Myers with Edmund Bitinas

NATO Operations in a Russian Coalitional Warfare Context

Since its founding, NATO's military plans originated from national commands rather than from a central staff, notwithstanding many multilateral exercises. By contrast, the historical Warsaw Pact and today's Russian Federation implement a unified plan to win a strategic conflict at the theater level.

When considering conflict scenarios, Soviet and Russian strategists have sought to exploit gaps in individual national defense plans to achieve decisive theater-wide objectives. During the Soviet era, Soviet military thinkers referred to this as "coalitional warfare." While this term does not appear frequently in contemporary Russian military journals, the concept seems to be a central aspect of Russian New Generation War.

The strategic objective of Russian coalitional warfare today is to create simultaneous yet conflicting NATO-member responses to Russian actions, both military and non-military. It seeks to divide and weaken the resolve of the Alliance by promoting among them incompatible views on the security risks posed by Russia. As a result, certain members underestimate the Russian threat or are unwilling to even accept the reality of Russian military aggression; while others feel a profound sense of vulnerability and resort to indigenous planning outside of the alliance structure.

Above all, the Russian strategic objective does not appear to be territorial conquest but rather dividing Europe and rendering it incapable of restricting Russian policy. This strategic objective has multiple roots, not the least of which is the continuing imperial identity central to the Russian political mindset. The Russian Federation seeks to preserve control of its periphery (namely, all parts of Russia outside

Moscow) and deter challenges to that control⁴¹⁵. Consequently, Russian political interests all have a root security dimension as opposed to the root social dimension to the interests of a democratic nation-state. An overwhelming number of perceived security threats elevate the Russian population's willingness to consent to coercive policies.

While the frontier with NATO is the only secure border Russia has, the prospect of having to face a firmly united Europe in the context of future power competition so thoroughly unnerves the Russian imperial strategy that the prevention of a coherent pan-European policy becomes central to the Russian political interest.

The Russian government had anticipated the Ukrainian crisis and annexation of Crimea to be of relatively little interest to European governments' policies. Therefore, the multi-year broad-ranging sanctions levied in response have come as a surprise. Nevertheless, they further cemented the Russian view of NATO as Russia's most dangerous foe for the foreseeable future.⁴¹⁶ Growing long-term security vulnerabilities elsewhere – most notably China opposite the Russian Far Eastern border – only emphasize the importance of dealing with the European challenge swiftly and decisively while the task is comparatively simple and the answer to the Chinese challenge is not immediate.

Like other aspects of New Generation Warfare, coalition warfare features an overt military dimension as well as a variety of subtler, more nuanced mechanisms. An ideal Russian new generation warfare victory involves succeeding with the least violent and most covert options without escalating to tactics endangering other Russian interests. Though various elements of New Generation Warfare can be employed simultaneously, each Russian decision to increase the intensity of its campaign represents an unwanted necessity to raise the stakes in order to achieve an objective.

⁴¹⁵ This imperial orientation differs significantly from the nation-state government identity predominant in Europe, in which the government simply acts as an arbiter of a population commonly identifying in a particular nation while secondarily defending that nation's population from outside security risk.

⁴¹⁶ Russian National Security Strategy, 2014

Establishing a Favorable Socio-Economic and Political Environment

In Europe, Russia seeks to revise the status quo. To this end, it exploits socio-economic and political specificities of individual states and organizations by favoring bilateral formats of interaction and, whenever possible, excluding multilateral structures and channels.

Active Russian efforts remain covert to avoid response at the government level. For example, instead of having the Russian government invest directly in a strategic element of a targeted country's infrastructure, the Kremlin might encourage a private Russian company or Russian state-owned enterprise to make the investment, even if the Russian government subsequently must subsidize the company to enable the transaction.

Russian efforts to manipulate other countries' economies aim to shape their respective domestic processes and policies. Russian planners study the varied economic environments of the target regions and identify which areas are depressed versus what areas are relatively prosperous and identify how to capitalize on local interests to generate changes to the status quo.⁴¹⁷ Into these gaps flows the attention to social interests. Conversely, overt Russian interventions in international economic affairs generally play to domestic Russian political interests⁴¹⁸ and not part of New Generation Warfare.⁴¹⁹ Economic manipulation rarely takes the form of Russian stated policy.

Social manipulation focuses on politically sympathetic or disaffected demographic groups. Ethnic Russians and Russian-speaking segments of population are prime targets in "the near abroad". However, in the

⁴¹⁷ Perhaps the best example of economic manipulation in action is the oil pipeline construction efforts that were undertaken prior to the 2014 polarization of Russian-Western relations. NordStream, to take one case study, offered improved access to Russian natural gas to Germany and the other core European economic powers, bypassing Poland and therefore allowing the German public to avoid the dilemma of listening to Polish concerns about the impact of German dependence upon Russian natural gas exports upon European security.

⁴¹⁸ Witness in particular the Russian Federation's decision to ban food imports from much of Europe. This has had little impact on the European political environment, though the ploy for domestic politics has in turn backfired. The continuation of this policy today most likely reflects an interest in improving Russian agricultural self-sustainability.

⁴¹⁹ Though these decisions may be pertinent to both.

absence of Russian diasporas, or when other populations are seen as more prone to manipulation, the activities may focus on other ethnicities.⁴²⁰ Russia does not only seek to organize and direct activities of these groups to advance its interests politically,⁴²¹ but also cultivates specific assets and capabilities among them that could be activated for kinetic destabilization purposes during crises.

Even if the interests of the agitated social group do not align with Moscow's interests, their dissatisfaction with their own government reduces their commitment to the defense of their country during a potential conflict and sows suspicion against elements of the population within the country's armed forces during peacetime.

To shape the political environment in Europe, Russia promotes political parties that oppose pan-European interests⁴²² and advocate for local Russian populations.⁴²³ While these parties are usually sympathetic toward the leadership of Vladimir Putin, they rarely actively call upon Russian expansion into their regions. Instead, they support the narrative that the interests expressed by Putin's government are rational and legitimate within specific historical scenarios.

The wildly divergent interests of proxy political organizations challenging the status quo explain the **Russian preference for bilateral relationships** between the specific region to which these organizations pertain and Russia itself.

Complicating this element of Russian strategy is the fact that it is grounded in the Russian perception of how the West instrumentalizes

⁴²⁰ Support of far-right political parties and their advocates in western Europe and the Polish minority in Lithuania are examples of New Generation Warfare prioritizing non-Russians over Russian populations.

⁴²¹ Less important is creating an active sympathy to Moscow's perspective in international relations. Even in the Donbas, far greater effort was dedicated to capitalizing on the region's antipathy to the central government in Kyiv than on making the disaffected populations desirous of a return of Moscow's rule over the region.

⁴²² Hence the equal willingness to support far right and far left political parties depending upon which is more opposed to NATO activities. Both the right-wing Front National (France) and left-wing Scottish National Party (United Kingdom) have received Russian support because of perceived negative impacts upon NATO solidarity deriving from their political success.

⁴²³ Such as Harmony in Latvia or the Center Party in Estonia.

“color revolutions.” Russian strategists contend that the West imbues a local society with economic inducements and political promises, converting these into active political discontent that can ultimately be mobilized to install a pro-Western government. The New Generation Warfare can be viewed as a Russian attempt to turn the tables and engineer “color revolutions” benefiting Moscow.

Russia attempts to engineer color revolutions of sorts within international organizations by stressing weak points within their structures or processes and bolstering conflicts between the interests of individual members and collective charters. For example, at the NATO-Russia Council, it seeks to use sympathetic Hungary and Greece to undermine the shared perception of the threat Russia poses to Poland and the Baltic States and erode cohesion of the Alliance.

At the height of the Obama Administration’s Reset Policy, Russia was able to secure membership in the World Trade Organization (a high-priority foreign policy objective Russia had pursued for years) in exchange for cooperation with the United States in areas that Russia simply saw as unimportant. Likewise, cooperation on issues such as the war against the Islamic State (ISIL), allows the Russian Foreign Ministry to reduce scrutiny of Russia’s active attempts to exacerbate and exploit power competition.

Special Operations to Misdirect Elites

Exploiting inherent tensions between principles of majority rules and minority rights central to democracies,⁴²⁴ Russia increasingly assumes the role of an advocate to disaffected special interests, groups and regions. Western emphasis on the use of mass data to serve smaller and smaller population segments makes this Russian tool particularly effective. By stirring calls for autonomy, Russia splinters target regions from broader defense plans or thwarts their integration into such

⁴²⁴ The number of independent countries having increased from around 50 in 1945 to around 200 today. The contemporary force for devolution, historically a problem for Russia at the final decisive moment of the Soviet era, is again becoming an advantage.

plans.⁴²⁵ By the time devolution in Russian propaganda becomes too infinitesimally small to serve as a viable political structure even for Russian interests, Russian strategists would counter-contend that this could be so easily nullified by a conventional military presence⁴²⁶ that it is of no significance.

To the elites sidelined by this avalanche of demand for autonomy, the Russian government helpfully caters a variety of resources to substantiate the claims historically, demographically and legally. For example, monographs explaining the “complicated” history of Crimea were published shortly after the Russian annexation of the peninsula in 2014. Likewise, Russian analyses of sociological trends within Western countries establishing “Western hypocrisy” are used to justify Russian domestic rejection of human rights protection for gender and sexual minorities.⁴²⁷

Conscious of the political imperative in the West for declared victory in their confrontations with the Russians, Russia willingly provides foreign elites with confirmations of its own weakness. This serves the greater strategic aim of limiting the elite’s perception of the Russian Federation as a real threat⁴²⁸ and removes incentives for their security institutions to seriously study ways in which the Russian government constructs tactical short-term solutions to overarching problems in a manner that makes periodic Russian successes “surprising,” “shocking,” and “unexpected.”⁴²⁹

⁴²⁵ In some part of the so-called “Luhansk People’s Republic,” the jurisdictions barely extend across villages of 100 inhabitants to reflect a sustainable political interest in refuting the local culture of having their tax revenue be misappropriated to a corrupt interest, even if the result is a more corrupt interest in Moscow.

⁴²⁶ Witness the equal subjugation of those villages in Luhansk Oblast to passing Russian and Russian-backed formations carrying out operations to either sustain the separatist regimes in the Donbas or conduct offensives against Ukraine government forces.

⁴²⁷ Citing the recent (i.e. 20th-century) Western condemnation of homosexuality, etc., both politically and socially.

⁴²⁸ Typically taken in light of comparisons between the Russian Federation of today and the Soviet Union of the 1980s or else rooted in contemporary Russian demographic and economic problems.

⁴²⁹ Compare this to Western expert opinions of the likely outcome of the escalation of the crisis in Kyiv immediately prior to the Russian decision to annex Crimea at the end of March 2014.

Russia fosters economic romanticism to divide societies. Amplifying frustrations of groups left on the sidelines of emerging global economy, Russian-sponsored media coverage highlights the elites' detachment from the problems of ordinary working people who suffer economic hardships even as their country is growing richer. As dissolving support for globalism erodes support for international partnerships, Russia readily encourages these reactionary sentiments in Europe and North America.

Accordingly, when Moscow succeeds in taking political control of a location through application of its New Generation Warfare tactics, it also exercises considerable economic largess. Economic support can take form of direct infusion of funds and subsidies and long-term contracts oftentimes unprofitable to Russia. This is best exemplified in Russia's economic propping up of Belarus and Transnistria in the years since the formal dissolution of the Soviet Union. Efforts are underway to apply this model to Abkhazia, South Ossetia, and Crimea, although the drop in the prices of oil has restricted the range of possibilities.

Intimidation, Fraud, and Bribery

Russia seeks to neutralize local institutions tasked with preserving the basic order through intimidation, fraud and bribery. This process tends to intensify as New Generation Warfare operations progress toward an actual military intervention. However, its primary purpose is to limit the government capacity to accept the threat posed by Russian destabilization efforts and erode mechanisms that can be employed to counter these efforts during the "peaceful" non-kinetic phases of the New Generation Warfare operations. Russia customizes these operations to each specific region, immensely complicating the defender's task of articulating and executing an effective response.

Russia clouds the law enforcement and intelligence communities' understanding of critical destabilizing factors within their own society and conceals the extent of preparations undertaken for a potential campaign. It grooms criminal organizations' members to take control of local economic interests, thereby further limiting the prospect that

improved regional economic conditions would translate into improved living standards for population. This process, in turn, makes targeted regions even more vulnerable to anti-status quo political activities.⁴³⁰

In some instances, these local groups thus influenced by Russian-backed agents can become the core of the manpower that forms the militarized group seeking “self-determination” that Russia ultimately advocates. However, they are often limited in size and problematic in regards to actual attachment to Russian interests. Russian lessons learned from employing such groups in the wars in Chechnya, Georgia and the Donbas emphasize the need to break the loyalty chain of these organizations before they could be indoctrinated to support regular Russian military activities.⁴³¹

Destabilization Operations and Organization of Militant Opposition

The active destabilization operations formula necessarily differs from place to place in order to guarantee the benefits of coalitional warfare. Generally, this comes under the guise of organized criminal syndicates or else small businesses aimed at competitive sporting. Less frequently does it involve Russian volunteers beyond the agents supporting the organization of bodies to actively resist the status quo.

Russia sustains a coalition warfare-oriented emphasis in avoiding parallelism among these organizations. However, if a similar formula to another organization has a preexisting groundwork for Russian operatives to use, this imperative will be overridden as building capabilities is more important than remaining covert.

Introduction of Armed Insurgents

As it moves on to the actual introduction of “volunteers” and the arming of the militant opposition, Russia’s emphasis shifts toward active

⁴³⁰ The middle-class disinclination to protests or revolutions in general has been well-documented since Alexis de Tocqueville first presented this thesis in the second volume of *Democracy in America* (1840).

⁴³¹ This is attested repeatedly among captured Russian volunteers who attempted to enlist in separatist militias in the Donbas. After arriving at training camps near the Russo-Ukrainian border, they were first broken from preexisting attachments to the others volunteering with them before being deployed onto Ukrainian territory.

division of perceptions within political elites of the coalition emerging to oppose its actions. This can range from pursuing plausible deniability to highlighting the unreliability of whatever claims are made by the victimized country so as to seed doubt among that country's allies.

Modern high-intensity warfare is exceptionally lethal and escalation to such a war results in much bloodshed. Russia understands that its potential opponents, particularly European democracies, are aware of this fact as well. Consequently, the democratic imperative of possessing accurate and complete information to make the decision to go to war in defense of a *supposedly* victimized ally, especially when that war would be fought against nuclear-armed Russia, is exploited to diffuse the possibility of those allies responding to Russia's actions.⁴³²

For Russia at this stage it is more important to prevent military action against the uprising sufficient to defeat the proxy forces than to establish the legitimacy of uprising. Shaping the U.S. position on whether NATO Article V response should be evoked is especially critical. The absence of such determination by the U.S. would have a paralyzing effect on the rest of the alliance, which in itself may be sufficient to achieve the strategic objective of dividing European security.

A successful operation does not necessary require overthrow of a government — establishing that the *de jure* government no longer has authority over the region may be sufficient. While Russia may or may not officially recognize the “separatist” authority,⁴³³ the mere existence of this alternative to the legitimate government calls into question government's capacity to control its own territory.

Clandestine Military Intervention

Clandestine military intervention is perhaps the most literal embodiment of the “hybrid warfare” concept and a decided escalation

⁴³² Consider the implications for George W. Bush Administration when it failed to find weapons of mass destruction in Iraq having used them as justification for war.

⁴³³ Whereas Abkhazia and South Ossetia have both been recognized by the Russian Federation as independent countries neither Transnistria nor the “people's republics” established by Russian soldiers and pro-Russian militants in Ukraine have gained such recognition.

over other activities described earlier. Its objective is to reduce the possibility of military countermeasures by both the targeted country and from the broader international community.

While the introduction of clandestine military forces may be triggered by the sense that the uprising engineered by Russia may be successfully defeated, they can also be inserted at the very start of the process of pitching armed insurgents against the local government.

Such units may range from small task forces organized and outfitted by the GRU⁴³⁴ to “volunteers” from the Russian civilian population or members of the Russian military on “vacation.”⁴³⁵ They are designed to operate at a sufficiently low profile in order to avoid a clear description that can be given to the media and international organizations.⁴³⁶

Through focused information campaigns Russia would seek to promote a narrative to sustain confusion and prevent recognition of such units as instruments of Russian aggression. Even if Russian attempts to shape public opinion fail, the newly established barriers – whether Russian or Russian-affiliated military personnel or, better yet, international peacekeepers – would emerge as incontrovertible reality reflected on media and Internet maps.

Use of Electronic Warfare and Reconnaissance Assets

Once the guise of an anti-government force is successfully established, the introduction of engineers and electronic warfare assets can be

⁴³⁴ *Главное Разведывательное Управление (Glavnoye razvedyatel'noye upravlenie)* or “Main Intelligence Directorate,” the principle military intelligence agency of the Russian Federation.

⁴³⁵ In addition to the much publicized cases of Russian soldiers “on leave” while operating in Ukraine, there have also been a fair number of Russian civilian volunteers comprising the manpower of the separatist militias in the Donbas, especially at the start of the conflict. Over time, these have decreased in number, especially as a proportion of the separatist formations. Despite this general trend, the Russian cultivation of an anti-NATO mentality among its general population means that Westerners should not ignore the possibility that a destabilization campaign in a NATO member state might generate significant patriotic sentiment to motivate a number of Russians to participate.

⁴³⁶ The means of definitively establishing Russian presence in the targeted country – even when such fact has been accepted by the local and Allied intelligence – would be automatically classified and therefore restricted from public dissemination. Russia would actively promote confusion and endorse all skeptical perspectives stoking fear of escalation.

attributed to those forces, regardless of the sophistication level and evident state sponsorship they may feature.

Overt Military Intervention and Occupation

Military or strategic necessity for Russia to conduct an overt offensive and exact an occupation must be recognized as a failure of New Generation Warfare. It, therefore, would only occur if the consequences of impending defeat of the other aspects of New Generation Warfare would lead to serious setbacks to Russian international standing or the loss of too many Russian “volunteers”.

At this point, coalition warfare would take on a classical guise, more typical of the Soviet era. It may include overt threats to individual members of any coalition rallying to defend the victimized state. It may take the form of any number of demonstrations of how individual countries are unprepared to deal with the consequences of fighting Russian tactics or of lacking the resources with which to counteract Russian actions.

The primary focus of this system of international daring is the decision-making process of the United States with a number of European states otherwise inclined to defend a NATO member state. Even if the United States remains committed to defending the victimized state, Russia would maintain its policy of coalition warfare in diplomatically staring down any other European or other countries from doing anything to intervene. This may include invocations of local laws to obfuscate the legal process of going to war, insinuations that the countries will be specially targeted in the event of their intervention, deliberate threats to civilian population centers, and the reservation of select military formations for immediate contingency operations against countries that decide to actively resist Russian overt military aggression.

Nuclear Threats

The Russian objective in using this aspect of New Generation Warfare is the prevention or de-escalation of a coalition’s willingness to counter its actions in the larger theater.

Nuclear threats do not have to come with an overt military intervention, may precede overt military intervention, or may be carried out simultaneously with overt military intervention. Nuclear threats may be employed as a form of terrorism against the governments of the countries with the implication that they are ultimately responsible to their respective national populations rather than to international agreements larger than their national interests.⁴³⁷

Nuclear threats, however, have a deteriorating impact on the situation if they are actualized. Nuclear strikes may heighten the sense of national pride on the part of the victimized country while also decreasing the degree to which the victim's respective government needs to fear for its population, instead thinking more of its legacy as the last stand in the face of the potential capitulation to an aggressor. Consequently, future nuclear wars will likely have three distinct phases (assuming that neither of the first two are successfully "off-ramped" to peaceful solutions) as opposed to the multiple dozens famously suggested by Herman Kahn during the Cold War:

1. **Conventional war with nuclear threats:** During this stage, nuclear threats will be most vocal as a means of terminating the war. Threats may be used when a nuclear-armed party assumes a position of advantage and dictates terms in a peace settlement. Attempts to prevent expansion of the size of theater of war and scale of human losses is the primary focus.
2. **The period directly following nuclear first strike:** At this time, the full shock of the first use of nuclear weapons in wartime since 1945 would reverberate throughout the world.⁴³⁸ Russian strategists have written considerably on the possibility of an "escalate to deescalate" system of limited tactical nuclear strikes, in which the shock of the employment of nuclear

⁴³⁷ During the Soviet era, its strategists also talked of Western employment of nuclear weapons in the diplomatic dimension of active confrontation between NATO and the Warsaw Pact as "terrorism."

⁴³⁸ With the potential for intervention – diplomatic or otherwise – by countries until this time generally aloof from the details of the conflict between Russia and its opponents. This would almost certainly include the United States if it previously decided to forsake the Russian-targeted country.

weapons might dissuade an enemy from pursuing the war and force a negotiated conclusion regardless of the diplomatic strength of the Russian position on the ground in the theater. This approach places high stakes on the likelihood that all nations – including the nuclear-armed ones – prefer finding a peaceful solution with Russia, even negotiating the sovereignty of a third-party country, to global annihilation. However, it does offer a logical “prisoner’s dilemma” for the Russian government and Russian media messaging to use should this ever be invoked. This phase of the war would continue even beyond the first employment of nuclear weapons until either the other side begins to shoot nuclear weapons back or the other side recognized that nuclear release was now an established fact in the war.

3. **General nuclear war:** At this point coalition warfare effectively recedes from relevance as governments become more detached from their respective populations. In general, if one side lacks nuclear weapons⁴³⁹ or the willingness to use them,⁴⁴⁰ it would eventually surrender or be annihilated. If it does possess nuclear weapons and uses them, an aggravated pattern of declining intelligence capabilities combined with mounting casualties demonstrating the existential nature of the conflict will almost certainly push the conflict toward final war of total destruction.

Joint vs. Combined-Arms Planning and Operational Approaches

In considering the framework of coalition warfare in the context of New Generation Warfare, it becomes useful to analyze the difference between the contemporary NATO and Russian approaches to operational planning. Whereas Russia retains the more classical “general staff” system of war planning, NATO member states generally follow the

⁴³⁹ For example, if only Poland resists Russian aggression and refuses to stand down. Even in the face of disaster.

⁴⁴⁰ For example, if the governments of the United States, United Kingdom, and France all refused to use nuclear weapons even if Russia began to use its arsenal indiscriminately.

American style of “joint” planning. This section of the paper will first analyze their distinctions and then reflect on how these two styles of war planning match up when put into conflict.

Joint Operational Approach

The operational approach of the United States is shaped by its aversion to empowering the military above the civilian government. This is rooted in the eighteenth-century political philosophy of republicanism and the ensuing nineteenth-century liberalism that animated nearly all U.S. governmental institutions. The contemporary approach evolved during the Soviet era not in response to Soviet activities, but rather as reaction to the Vietnam War failures. It was an attempt to bridge the cultural gap that developed through the distinctive armed forces services fostered by the traditional US military approach and the modern era’s demand for synchronized operations to succeed in high-intensity environments.

Though the general staff approach is more classical a form of operational planning, given as how it derives its spiritual father in Napoleon as opposed to the late-twentieth-century U.S. defense bureaucracy, cultural divisions in a joint system are far older than anything propagated by the general staff approach. Each Service (Army, Navy, Air Force, and any other services) of an individual country with a joint operational approach fosters its own culture and doctrine that superficially imposes interoperability with the other services only within the context of specific operations.

This results in the very basic problem of debilitating competition among services, perhaps demonstrated nowhere better than the lethal competition between the Imperial Japanese Army and Navy.⁴⁴¹ Such competition has led to failures of communication between the services in the most famous circumstances despite definite costs in human lives.⁴⁴²

⁴⁴¹ Though no longer a lethal competition, the distrust between the contemporary Japanese land and maritime Self-Defense Forces remain intense resulting in inter-service paralysis.

⁴⁴² See major operations during the First World War and Operation Urgent Fury.

Conflict of interests is evident in the realm of operational planning, wherein joint staffs within NATO are still taught to paste individual “component” plans together rather than articulate a combined plan to achieve a unified end-state. Though joint staffs have grown better in recent decades at defining a specified end-state, they generally leave individual service-to-service relations to ad hoc decisions in the middle of an operation’s execution.

These joint component plans are particularly vulnerable to Russian coalition warfare. Russian planners are able to anticipate not only competing component plans but also competing national plans as NATO joint plans which tend to prioritize national priorities of individual allies, at times to the detriment of defeating general enemy operations.

These problems pervasive within conventional military operations planning are rendered even more tempestuous by the political complications of responding to lower-intensity aspects of New Generation Warfare. Whereas joint operational planning is especially effective at ensuring that all aspects of national military power are employed to emphasize individual service’s specialties, it is almost completely incompetent at either complementing or reinforcing non-military contingencies.⁴⁴³ Russian general staff planning, conversely, actively incorporates these into standard practice of operational design.

Combined Arms Operational Approach

Combined arms operational approach is the application of the general staff system best exemplified by the Wilhelmine German Army adapted for the wide variety of arms types available to militaries today. This style has been a fixture of the Russian state since prior to the Bolshevik Revolution of 1917 and, though adapted with a more flexible C2 structure and improved communications following the disasters of the First Chechen War, still endures in largely its Soviet era form in the Russian military today for the purposes of conventional operations. The incorporation of the doctrines of New Generation Warfare into Russian

⁴⁴³ E.g. police activities.

strategy has only broadened the sweep of tools the Russian General Staff already possessed for executing a war to a successful conclusion.

The key to the Russian way of warfare is determining the most effective manner of achieving strategic victory as opposed to reaching a specific end-state. The concept of “strategic victory” in turn requires the incorporation of non-military elements of statecraft, such as diplomacy, into operational planning, whereas the achievement of end-states is generally restricted to military considerations in order to avoid mission creep. Preserving power for further contingencies is deemphasized for scenarios where strategic victory is achieved. Therefore, compared to a joint system, designed by the individual services with the best interests of the services in mind, the tolerance for casualties is much higher.

Perhaps most importantly, in a combined arms operational approach all aspects of the country’s armed forces are evaluated within the context of future operational plans. This safeguards against neglect of the role of the air force in a ground operation or the possibility of the deployment of naval assets in a manner that contradicts the intention of the ground commander. Furthermore, it facilitates a meaningful evaluation of whether or not a specific unit is necessary or useful within the arms structure, enabling decisions on investments in specific capabilities and prioritizing the most significant elements of a plan. By contrast, the joint operational approach generally results in each service demanding a cultivation of all of its capabilities without full consideration of how an improved capability would actually assist the service in achieving its country’s objectives.

Combined arms operational approaches, however, are not without their defects. As demonstrated by the execution of the Schlieffen Plan in 1914 and the Soviet operational plans during the post-Second World War period, a general staff tends to place far too much emphasis on the integrity of the preexisting plan and can imprison commanders into a general military concept that may or may not be tactically relevant when engagement occurs. Although the Soviet General Staff attempted to “pre-plan” for this contingency by constructing reserves sufficient to allow higher level commanders alternative options for fulfilling the plan.

Furthermore, adaptation of the plan requires correlation all the way up to the General Staff itself, which can result in great delays in a world increasingly demanding swift action. In addition, the very facility of deciding what capabilities to pursue and not pursue lends to an inflexibility of planning that may lead to the wholesale neglect of new ideas that would otherwise upend the entirety of military logic in a manner similar to the “offsets” undertaken by NATO militaries during the Soviet era. As result, general staffs may be more reactive than innovative in their planning.

As demonstrated in the Russo-Georgian War of 2008 and the ongoing war in the Donbas, the Russian General Staff has attempted to compensate these problems by devolving tactical authority to field commanders and enabling formations to freely dedicate their forces so long as it is compatible with the larger strategic-operational picture. This solution, first ably implemented by German Marshall Moltke the Elder in the nineteenth century, succeeds when subordinates have a relatively limited window of maneuver, as in the Seven Weeks’ War, but can lead to massive deviations from the strategic-operational plan so much as to actually prevent their accomplishment, as demonstrated by the plan changes undertaken by Generals von Kluck and von Bulow in the 1st and 2nd German Armies as they attempted to approach Paris in 1914.

In contemporary Ukraine, the lack of a clear definition of strategic victory beyond the sustainment of militant activities has been evident in the relatively un-Russian tactical gradualism⁴⁴⁴ of inserting forces into the war zone. The result has been the hardening of Ukrainian defenses without achieving any particular strategic victory in the Donbas.

New Generation Warfare introduces uncertainty on how to appropriately use forces in the context of merely sustaining a vague political goal as opposed to attempting to achieve a particular military objective. Though it is conceivable that the Russian General Staff, still viewing itself unprepared for large-scale conventional war, approaches the Donbas as a low-risk opportunity to train its officers for the sort of

⁴⁴⁴ Not dissimilar from the mistakes of the US Army in the Vietnam War.

decisions they would need to make in a larger context⁴⁴⁵, this seems unlikely.

Clash of Joint and Combined Arms Operational Approaches

Twentieth-century history has not provided clarity on which of these operational approaches functions better in wartime. Whereas the First World War showed the potential folly and slow learning curve of the combined arms approach in the tragic extremes, the British Imperial General Staff ultimately managed to integrate US forces into its plan and achieve final victory over the German General Staff.

The Second World War featured the clash of two combined arms approach powers, namely Nazi Germany and the Soviet Union, alongside the clash of two joint approach powers, the Japanese Empire and the United States. The British, no longer operating under a general staff approach, and allied with the Americans, ultimately achieved a convincing victory against Nazi Germany in western Europe, though this was more a product of superior numbers of equipment as most German resources were locked on the Eastern Front. The two major operations of the war — the U.S. response to the Battle of the Bulge and the Soviet invasion of Manchuria — seem to hold contradicting lessons. U.S. improvisation in the Ardennes ultimately defeated the German operation, whereas the Soviet invasion was masterfully calculated to achieve its strategic victory with almost perfect results against what had previously been one of the best Imperial Japanese forces deployed on the Asian continent.

During the Soviet era, general staff-plotted strategies succeeded in ultimately defeating U.S. plans in the Korean and Vietnam Wars, albeit at enormous costs to forces under their respective commands. The Soviet General Staff's plan to invade and occupy Afghanistan succeeded in gaining control of the country, but failed to pacify and police it; the

⁴⁴⁵ Only in this sense has the war in the Donbas achieved a strategic victory for Russia. Although the Russian War against Ukraine has also allowed Western armies to reexamine the respective approaches to contemporary war.

same can be said of the joint approach invasions of Iraq and Afghanistan afterward.

In the absence of any definitive trend in the data, modeling and simulation can be a helpful tool in evaluating the approaches. Here, the artificialities of gamisms interfere, but nevertheless offer some consistencies.

When the game includes coherent objectives, regardless of their realism or ambition, combined arms approaches to operational planning tend to outperform joint approaches. However, the existence of a clear objective handed out artificially at the start of the game may be too disruptive. Teams following a combined arms approach to operational planning with clear objectives tend to array their forces in offensives calculated to achieve those stated objectives, even if their objectives are fundamentally defensive in nature. Joint operational approach teams, by contrast, define given end states for each stage of the game and have a tendency to declare victory depending upon specific expectations either met or unmet by the unfolding of the scenario in the game.

This suggests that combined arms operational approaches are superior at organizing offensives with given forces whereas joint operational approaches are better for organizing and gauging defenses.

Hypothetically, **a military with a culture capable of using a joint operational approach to establish defenses and then switch to a combined arms approach when mounting a counteroffensive might be the best placed to win a conflict**, though this would be a command structure abnormally flexible among military communities.

Observations from Baltic Campaign Simulations

The Potomac Foundation ran a series of campaign simulations that explored scenarios involving invasion by Russian forces, occasionally with support from Belarus. Poland, Sweden, Finland and certain NATO countries were included. Although each simulated scenario was different, they shared a common set of Russian objectives:

- 1) Establish a land corridor between Russia and Kaliningrad, and

- 2) Demonstrate to the Baltic States that NATO is unable to support their defense needs.

From these simulations, a series of observations that were common across most or all simulations has been compiled.

The Russian Threat

Russia can assemble a sufficiently large land force to invade and conquer the Baltic States, if NATO does not respond. These forces would not need to include any forces that are currently deployed opposite Ukraine, but would reduce the size of forces available in other parts of Russia. For this invasion to be successful, it must be swift, before NATO or other regional powers can act decisively.

To win the information war, Russia would bill its forces as 'peacekeepers' sent to put down riots and restore order, particularly in Latgale, but also in parts of Estonia with significant numbers of ethnic Russians. It was only when it was obvious that these 'peacekeepers' had some other objective, did the conflict escalate. Even so, Russia tried to avoid attacking other NATO nations directly to maintain the illusion of a peaceful purpose to their actions for as long as possible. This prevented a significant employment of Russian air power in the initial stages of the campaign, other than to maintain a 'no fly zone' over the region.

Establishment of contested air space over the region is critical to Russian success, and could be facilitated by an amphibious occupation of the island of Saaremaa in the northern Baltic, followed by reinforcement to include high and medium air defenses. The S-400 system, with an operational range of 250km to 400km (depending upon the missile used) would be able to close the air space over the Baltic Sea if deployed to both Saaremaa and available in Kaliningrad. Low altitude penetration into the Baltic air space would still be possible into Latvia.

Closing the maritime routes into the Baltic States' ports would be a source of advantage to Russia. This could be easily accomplished with sea mines, submarines and long-range aviation. Although a concerted effort by the countries that ring the Baltic Sea would eventually restore

those sea-lanes, reinforcement and resupply of forces in the Baltic States via the sea would be denied for a sufficiently long time to allow for a successful conclusion of the land campaign.

The land threat would take the form of multiple armored and mechanized columns moving along the major road and rail routes to establish the desired land corridor to Kaliningrad. Attacks into northern Estonia may be used to tie down NATO forces that could otherwise be used elsewhere. Similarly, Russian forces in Belarus, along with Belarussian forces, may keep Polish and Lithuanian forces focused on that direction, while the main Russian attacks would come into Lithuania from Latvia. These land thrusts may be preceded by air mobile forces, heliborne and/or airborne, to seize key transportation features, such as bridges over major river obstacles, to prevent them from being destroyed ahead of the armored advance.

Belarus Threat

In the course of simulations, Belarus provided air and indirect fire support to Russian forces advancing from Belarussian territory, or made direct contribution of a full combined arms force to augment Russian forces moving against Lithuania and/or Poland. The potential of this threat forced Polish and Lithuanian forces to deploy a significant force along the Belarussian border to prevent closure of the landlines of communications between their countries. In two of the simulations, a combined Russian-Belarussian force attacked into northeast Poland in an attempt to cut the Lithuanian-Polish supply and reinforcement capability or to force Polish forces to defend Poland and therefore be unavailable to reinforce the Baltic States.

Baltic Defense

In all of the simulations, the Baltic States were played by separate teams. Although each had knowledge of the defense plans for their countries, none had knowledge of neighboring states' defense plans. As a result, the plans were not coordinated, and generally prioritized the defense of the respective nation's capital.

Since the three capitals were not initial Russian objectives, when insufficient NATO forces were available to reinforce the defense, Russia was able to achieve its objectives in a little over a week. However, modest improvements in the Baltic States' defensive capability, provided either by force modernization or through reinforcement by NATO allies, greatly complicated the Russian invasion. The most significant improvement came with the introduction of NATO armored forces into the Baltic States. NATO tanks and helicopters were able to stop and occasionally defeat the Russian advances.

The Contributions Provided by Poland

Since establishing a land corridor to Kaliningrad was the main goal of the Russian invasion, holding that outpost was a key part of the Russian plan. Polish forces poised along the southern border of Kaliningrad prevented Russian forces in that territory from significantly contributing to the campaign elsewhere. If a significant sized force left Kaliningrad to either go north to link up with the forces moving southwest from Russia, or east to close the land routes between Lithuania and Poland, Polish forces were able to attack and win in Kaliningrad.⁴⁴⁶

In every simulation, **Poland emerged as the key to providing adequate defense of the Baltic States.** Polish forces pinned Russian forces in Kaliningrad, held open the land link to Lithuania, and, in some cases, horizontally escalated the conflict into Belarus to force the Russians to rethink their strategy.

Tactical Nuclear Weapons

In some of the simulations, particularly those where Polish forces, occasionally accompanied by U.S. forces, escalated the conflict by invading Belarus, the Russians either threatened or actually employed tactical nuclear weapons against NATO forces on the territory of Belarus. In these cases, NATO players did not know how to respond.

⁴⁴⁶ The opposite was also true. If Polish forces did not deploy along the Kaliningrad border in sufficient force, Russian forces could be used to encircle Polish forces in northeastern Poland and cut the link to Lithuania.

This demonstrates a gap in NATO thinking, at least at the unclassified level.

Conclusions on the Tactical and Technological Needs for a Credible Defense: The Baltic States can be successfully defended if some tactical and technological innovations are employed to improve the overall defensive posture.

Tactical Needs

The primary threat to the Baltic States is the land invasion from Russia, and potentially Belarus. This invasion must achieve its objectives quickly and prepare for, or prevent, a significant counterattack by the rest of NATO. Thus, a **successful defense of the Baltic States depends upon delaying the successful accomplishment of initial Russian objectives** for as long as possible.

One possible tactical innovation would be the **use of covering force hit and run tactics**. In many locations, the available road network is sparse. The few roads that do exist pass through terrain that is otherwise nearly impassible due to heavy woods, marshes or standing water. If armored vehicles must pass through these chokepoints in single file, anti-armor ambushes that destroy the lead vehicles can block the chokepoint for some time. If the obstruction is also covered by indirect fire, clearing the obstruction may become problematic for the invader.

Another tactical innovation is the **use of ambushes against supply columns from wooded areas**. Although the invading force may move quickly and come from any direction, it will eventually require additional fuel and ammunition. Light infantry with anti-armor capability, such as shoulder fired anti-armor rockets, can disrupt or destroy a lightly armored or unarmored supply convoy from concealed positions in the woods along a supply route, and then melt back into the woods.⁴⁴⁷ Delaying or denying resupply of the advancing combat columns will

⁴⁴⁷ One example of the use of light troops in this way is the Finnish use of ski troops during the Winter War against the Soviet Union in 1939-40.

force them to slow or stop, buying much needed time, and perhaps providing lucrative targets for NATO aviation.

The third tactical innovation is the **use of barriers**. Traditionally, barriers were constructed to stop or channel movement of attacking forces. This use of barriers is still viable in the Baltic States. The number of avenues of advance available to Russian forces is low, and the number of sustainment routes fewer still. By creating barriers to movement, particularly those that cannot be easily overcome, the enemy advance will be delayed. Moreover, forces stopped at a barrier can be more readily attacked by indirect fire or ambushes than forces that are moving. Advancing columns that are split by a barrier may provide the ability to counter attack smaller sized forces that have lost the ability to mass. This requires preparation of the battlefield. Suitable locations for barriers, ambush areas and indirect fire kill zones must be identified in advance, and the tactics necessary to create a barrier in advance of an enemy column and follow it up with either a direct fire ambush or an indirect fire strike must be rehearsed.

Technology Needs

Technological advances are typically expensive, and require the commitment of substantial funds. Nevertheless, certain solutions may be within the parameters of defense budgets of the Baltic States.

Heavy armor is still the preferred method for both attacking and defending a country from conventional attack. If on the defensive, and well-practiced in hit and run tactics, a few tanks can go a long way to help slow an enemy advance. These tanks may be obsolete models that are or can be put into good working order. Obsolete tanks are still effective against armored personnel carriers, infantry fighting vehicles and other lightly armored or unarmored forces. Purchasing modern tanks may be cost prohibitive, but **arrangements for bi-lateral training, storage and maintenance of an armored capability** may be within a nation's budget.

Modern anti-armor systems are effective against most armored vehicles, and may not require an expensive platform to operate.

Shoulder-fired anti-tank guided missiles, such as Javelin, or vehicle mounted systems, such as the TOW (Tube-launched, Optically-tracked, Wire-guided) missile system, purchased in sufficient quantities, are an affordable anti-armor solution. Indirect fire anti-armor systems, such as the STRIX 120mm mortar round, are another alternative worth exploring.

Rapid barrier creation can be performed through routine road maintenance and preparation at suitable points along main routes. A simple approach is to bury a pipe under the route, and provide access to the pipe via one or more standpipes left sticking out of the ground. In the event of a conflict, the pipe can be filled with a liquid explosive and detonated creating an instant barrier in the form of a ditch. Various other security barriers have been invented and used to deny vehicle access to bridges. These too could be installed along main advance and resupply routes and activated as needed.

Mobile fire support could be another decisive technological improvement. Although NATO has standardized on the 155mm howitzer, self-propelled howitzers are both heavy and expensive, while towed howitzers are vulnerable to enemy counterbattery fire and may not be mobile enough in the modern battlefield. An alternative is the 120mm rifled mortar.⁴⁴⁸ Although its projectile is smaller and range not as great, the towed 120mm mortar does not require as large a vehicle as a prime mover and is air transportable by many transport helicopter models. With few moving parts, the mortar is inexpensive to maintain and is reliable in battle.

⁴⁴⁸ The US Marine Corps has purchased a rifled 120mm mortar, while the US Army selected a 120mm smooth bore mortar.

CHAPTER 5

U.S. MILITARY OPTIONS AND AN ACTION PLAN FOR NATO

Phillip A. Petersen with Phillip A. Karber

NATO needs a new Strategy. Its current “Strategic Concept” was adopted in 2010 and is predicated on the assumption of a “Security Environment,” that “the Euro-Atlantic area is at peace and the threat of a conventional attack against NATO territory is low.”⁴⁴⁹ Based on this premise, the focus

was on “Crisis Management ... beyond NATO’s borders,”⁴⁵⁰ arms control, disarmament, and non-proliferation with Russia as a security partner, as well as military “reform and transformation” in order to “streamline structures, improve working methods and maximize efficiency.”

General Philip M. Breedlove, NATO’s Supreme Allied Commander Europe, was the first to address the lacuna in the Alliance’s strategy for the post-interregnum, with his new “Theater Strategy”.⁴⁵¹ Written under the aegis of his dual-hat role as Commander of U.S. Forces in Europe, this document is the first articulation of the need for a new strategy “confronting the most profound negative change in the

⁴⁴⁹ Based on NATO “Political Guidance” adopted in 2006, the last strategy published was: “Strategic Concept: The Defence and Security for the Members of the North Atlantic Treaty Organization,” Adopted by Heads of State and Government at the NATO Summit; Lisbon, POR: NATO Headquarters, 19-20 Nov. 2010, available at <http://www.nato.int/nato_static_fl2014/assets/pdf/pdf_publications/20120214_strategicconcept-2010-eng.pdf>.

⁴⁵⁰ “The best way to manage conflicts is to prevent them from happening. NATO will continually monitor and analyze the international environment to anticipate crises and, where appropriate, take active steps to prevent them from becoming larger conflicts. Where conflict prevention proves unsuccessful, NATO will be prepared and capable to manage ongoing hostilities. NATO has unique conflict management capacities, including the unparalleled capability to deploy and sustain robust military forces in the field.” *Ibid.*, p. 6.

⁴⁵¹ GEN Curtis Scaparrotti, “SACEUR General Scaparrotti Remarks at SACEUR Change of Command Ceremony,” Defense Media, (4 MAY 2016), at <<https://www.dvidshub.net/video/461964/saceur-general-scaparrottiremarks-saceur-change-command-ceremony#.VzQ2l6vfZEc>>.

European security environment since the end of the Cold War ... a revanchist Russia.”⁴⁵² Breedlove’s replacement, General Curtis M. Scaparrotti, in calling this “a pivotal moment within the European Command area of responsibility as it faces numerous threats and strategic challenges,”⁴⁵³ highlighted the challenge of a “resurgent Russia” and stressed the need “to fight if deterrence fails,” noting that “General Breedlove’s priorities remain in force.”⁴⁵⁴

Recognizing the Threat and Reaffirming Liberal Values

After the end of the Second World War, the United States attempted to construct a political architecture in Europe that would fix firmly in the past European national competitions that brought Americans twice to Europe to tip the scales of conflict against tyranny. To secure this new political architecture, the United States promoted a North Atlantic Treaty Organization (NATO) that would demand rejection of revanchist policies. As the British Soviet expert, Christopher Donnelly, frequently observed during the Soviet era, the most obvious security contribution of NATO was that it ended the destruction wrought by the wars between Germany and France. This success of the NATO formula was even recognized in Moscow as the Soviet Union entered its death throes, when it was understood that future security in Europe (to include the security of Russia) was dependent upon European stability

⁴⁵² The others in order of expressed concern being: “mass migration from other regions, foreign terrorist fighters (FTF) transiting through Europe, cyber-attacks, the lingering effects from a global financial crisis, and underfunded defense budgets all jeopardize European security,” *Ibid.*, p. 1.

⁴⁵³ Cheryl Pellerin, “Eucom Nominee Scaparrotti Testifies Before Senate Panel,” DoD News, (21 APR 2016), at < <http://www.defense.gov/News-Article-View/Article/740054/eucom-nominee-scaparrotti-testifies-before-senate-panel> >.

⁴⁵⁴ GEN Curtis Scaparrotti, “SACEUR General Scaparrotti Remarks at SACEUR Change of Command Ceremony,” Defense Media, (4 MAY 2016), at < <https://www.dvidshub.net/video/461964/saceur-general-scaparrotti-remarks-saceur-change-command-ceremony#.VzQ2l6vfZEc> >.

and upon keeping America engaged in Europe.⁴⁵⁵ Unfortunately, the vision of “a different Russia – more democratic, hopeful, more European, one at peace with itself and with its neighbors”⁴⁵⁶ – only lasted until the Russian Constitutional Crisis of 1993.⁴⁵⁷ Once the security structures of the Soviet Union reasserted themselves on the political processes in Moscow’s reduced dominions, the die was cast in what would become an unavoidable clash of political cultures.

When Vladimir Putin first became Prime Minister in 1999 he inherited an incompetent government that had acquiesced in the dismemberment of the Soviet Union that had labored for more than seventy years to restore Moscow’s control over the territories surrendered in the 1918 Treaty of Brest-Litovsk.⁴⁵⁸ Determined to undo what he saw as “the

⁴⁵⁵ See Phillip A. Petersen, “The Challenge to Soviet Strategic Development: An Emerging Vision of European Security,” in *Jane’s NATO Handbook 1990-91*, edited by Bruce George, pp. 323-334; Peter Almond, “Soviet empire will fall, Pentagon expert predicts,” *The Washington Times*, March 12, 1990, p. A6; Joseph Fritchett, “Europe: A U.S. Map Of Moscow’s Hopes,” *International Herald-Tribune*, March 26, 1990; and Reiner K. Huber and Phillip A. Petersen “Déjà Vu All Over Again: How End of the Cold War Soviet Views Portended Putin’s Plans for Dismantling the European Union,” paper presented at the 26th European-American Security Workshop at Birini Castle, on 24 September 2016.

⁴⁵⁶ Vladimir V. Kara-Murza, “Don’t erase the memory of Boris Nemtsov,” *The Washington Post*, March 17, 2017, p. A17.

⁴⁵⁷ As explained by the rector of the Russian State University for the Humanities, “...the real winner in the October 1993 showdown between Yeltsin and the Soviet parliament was the military-industrial complex, acting in unison with the bureaucracy. At the time, the events of October were seen as a victory of democracy, a removal of obstacles on the path to reform. It now appears that the military exacted certain concessions before bailing out Yeltsin by storming the parliament. The very day after the resolution of the parliamentary insurrection, Yeltsin convened a Security Council meeting that had only one item on the agenda: a new military doctrine that expanded Russia’s security interests throughout the territory of the former U.S.S.R. and rescinded the no-first-use nuclear pledge from the Gorbachev era.” Yuri N. Afanasyev, “Russian Reform Is Dead – Back to Central Planning,” *Foreign Affairs*, Volume 73, Number 2, March/April 1994, p. 23. In fact, “The Basic Provisions of the Military Doctrine of the Russian Federation” were examined at a session of the Russian Security Council on 3 October 1993 and, although the Army had initially declared its neutrality, the Army stormed the Supreme Soviet building in the early morning hours of October 4th, and the Security Council met again on 6 October to examine the proposed document and approved the finalized document on 2 November 1993. See *The Basic Provisions of the Military Doctrine of the Russian Federation*, 1993, p. 1.

⁴⁵⁸ “It was just five o’clock on the afternoon of March 3, 1918, when the ceremony of signing the treaty of Brest-Litovsk was completed. By this agreement, Russia lost 34 per cent of her population, 32 per cent of her agricultural land, 85 per cent of her beet-sugar land, 54 per cent

greatest geopolitical tragedy of the 20th century,” Putin adopted an approach focused upon asymmetric capabilities that could draw upon the experience obtained during the “separatist” war in Moldova’s Transdnier region and, subsequently, in Georgia’s regions of Abkhazia and South Ossetia.⁴⁵⁹

While Putin and his subordinates were somewhat surprised at the lack of enthusiasm of many in Ukraine for his 2014 Anschluss with the Russian Motherland, “military means of a concealed character” was well within the intellectual frame of reference for subversion to a former *KGB* officer. Rebellion and reunification did not have to be genuine to be persuasively presented to audiences unwilling to be confronted by unpleasant truths. This manufactured manifest destiny has set fire to Europe’s common home in a showdown between a superpower “wannabe” and the struggle of small nations for self-determination. No longer can Russia’s revanchist claims and aggressive military posturing be dismissed as only political displays – they have to be taken seriously because they have been shown to lead to war.

Russia’s invasion of Crimea in a sudden *fait accompli*, utilization of the covert and lower intensity techniques of New Generation War to promote and exploit a rabid form of nationalism, then followed by large-scale direct attack by combined-arms formations in high-intensity combat, and various forms of nuclear threats highlight a range of vulnerabilities from which the Baltic States and Poland are not immune. The Baltic States and Poland understand what Putin means when he talks about Russia as a “civilizational state” struggling against the heritage of liberalism and the nation-state because they have been submerged in this primitive feudal political culture before. Poland, however, is of sufficient size to play its own game in rejecting this domination, and its fear of being abandoned as it was in 1939 has yet to

of her industrial undertakings, and 89 per cent of her coal mines.” John W. Wheeler-Bennett, *Brest-Litovsk: The Forgotten Peace, March 1918*, New York: W. Morrow & Company, 1939, p. 269.

⁴⁵⁹ For a greater elaboration of the argument made in this section, see Diego A. Ruiz Palmer, “Back to the future? Russia’s hybrid warfare, revolutions in military affairs, and Cold War comparisons,” *NATO Research Paper*, Number 120, Rome: NATO Defense College, October 2015.

be adequately addressed by its NATO allies. The question is not so much the role of Eastern Europe in NATO's strategy therefore, but the role of NATO's strategy in helping to secure Northeastern Europe. It is in Eastern Europe where the struggle of Europe's commitment to its foundational values and political culture will be won or lost. It is the peoples of Northeastern Europe who have issued the call to arms. The questions that need answers are 1) what does NATO need in the way of forces and structure; and 2) how must NATO organize to meet these new challenges?

Perceptions and Misperceptions in a Baltic Net Assessment

As part of its net assessment of security in the Baltic Region, The Potomac Foundation conducted several computer-assisted Baltic Campaign Simulations to evaluate the military balance and underlying political-military assumptions. The simulations were based on The Potomac Foundation's proprietary HEGEMON platform and methodology. HEGEMON is designed on Google Earth interface; includes a detailed attrition calculation application for direct fire, indirect fire, air attack, and air defense; and employs a movement calculator that takes into account how terrain inhibits accessibility to particular categories of military vehicles (i.e., tanks, towed and self-propelled artillery, and various types of infantry vehicles). The forces are controlled by players who issue movement and combat orders for each turn to the units under their command. All unit orders are provided for each move to the umpire, who adjudicates movement and combat outcomes. All orders are submitted and executed simultaneously.

Simulations were run twice each at the Foundation's facility in Virginia with a nearly full contingent of Washington-based Defense Attachés (excluding Russia and Belarus) from the region, and in Rīga, Latvia for the Defense Ministry; as well as once each in Tartu, Estonia for the Baltic

Defense College, and in Warsaw, Poland at the National Stadium with the Pułaski Foundation. Because the game is dynamic, and completely dependent upon how the players respond to the crisis being examined, each simulation produced some unique “lessons learned.” Each game presented political as well as military challenges because, in the end, the North Atlantic Treaty Organization (NATO) is a collective of democratic states with varying security perceptions. All the simulations generated questions for the players addressing both national and NATO policies regarding a number of aspects of armed conflict in the Baltic region, and established the need to agree upon policies, plans, rules of engagement, *etc.* for how the Members of the Alliance should act to meet their Article 5 obligation regarding collective defense.⁴⁶⁰ The simulations also demonstrated to a number of senior defense officials that HEGEMON may be useful for the exploration of major force structure issues, specifically how to allocate available resources most efficiently for both short term and long term defense needs.

Perhaps the greatest lesson learned from the use of HEGEMON computer-assisted Baltic Campaign Simulations was that years of neglect of NATO’s operational-strategic command of forces, even at a corps level, have resulted in a total loss of the institutional memory in combined-arms planning at this level. The impact has been felt especially strong in the Baltic States. With armed forces too small to facilitate operational-strategic scale thinking initiated internally, and with virtually no external input from NATO, the Baltic States organized defense plans around national priorities that left allied partners vulnerable.⁴⁶¹ The simulations repeatedly made clear the necessity for a

⁴⁶⁰ It should be noted that participants in the simulations called attention to the fact that membership in the European Union has similar defense obligations that, to some extent, mitigate the fact the Sweden and Finland are not members of NATO. Thus, between the two organizations, the three Baltic States and Poland have a clear right to expect that no Baltic Sea state, except Russia of course, would remain indifferent to military aggression waged against them.

⁴⁶¹ It should be noted that, having observed how the simulations demonstrated the negative consequences of Russian operations across regional borders impact upon national plans, the

single, integrated, combined-arms approach to defending the three Baltic States and Poland. Latvia, Lithuania and Estonia – three sovereign countries with distinct borders – are actually conceptualized by the Russian General Staff as one geostrategic space of low-lying terrain along the Baltic Sea coast that separates Russia from “warm water” ports as well as from Kaliningrad *Oblast*. Having a land corridor to Kaliningrad with an existing rail connection to Russia, and restoring sovereignty over warm water ports on the Baltic Sea are the principle objectives for the planned Russian military operations in the region.

Just as basic operational planning emerged as a central matter that NATO militaries will need to either learn or relearn, so it also became clear that basic **coalition warfare** scenarios must also be learned or relearned. In today's competition between NATO and Russia, the commitments of individual NATO member states to the alliance are perceived by Moscow as more precarious than ever before⁴⁶² and no European country has nearly the disproportionate influence on the strategic aspects of a prospective conflict as Poland. Polish national concerns now drive debates in both diplomatic and military circles throughout NATO, and Poland's role in a conflict instigated by clashes in the Baltic States will be critical to how to conduct defense both strategically and operationally in the region.

NATO will not establish stability within or without the Alliance until it addresses **Poland as the center of gravity for stability in Eastern Europe**. The Poles have come to realize they are a big European state and will be negotiated with as a state with its own interests and capable of pursuing those interests independently. In each of the HEGEMON Simulations the Polish Government was played by Poles (sometimes

Defense Ministries of Estonia, Latvia, and Lithuania have since made strides to mitigate the glaring omission of failing to coordinate defense planning with their neighboring allies.

⁴⁶² No more evidence need be cited in this regard that the fact that in *Zapad-2009*, the Russian General Staff played France and Germany as refusing to honor their Article 5 commitments. A perception that was never reflected in operational-strategic exercises during the Soviet era.

outside the government but with close connections and sometimes by Poles from inside the government), and it was possible to observe a pattern of behavior that should serve as a warning to Poland's allies. In each simulation, the Poles delayed (or refused) to take collective action and/or took actions independently without consulting their allies that raise questions for NATO about the conduct of defense against a Russian attack:

1. Given the determination of Warsaw to ensure that, should Russia start a war, that this would be "no small war," how will NATO respond to Russian aggression?
2. Given the determination of Warsaw to destroy the Russian Army if Moscow starts a war in the Baltic Region, how will NATO fight the Russian Army (i.e., will NATO conduct principally "defensive" operations or will it aggressively conduct counter-offensive operations beyond NATO Member State boundaries)?

Answers to these two questions will determine the coalitional nature of NATO's plans to defend its Member States and, as a result, perhaps determine its ability to deter Moscow from either war or escalation in event of a crisis.

The HEGEMON Simulation differs from Board War Games in that it has simultaneous (rather than sequential) movement, incorporates degraded intelligence, and includes the "multi-domain" complexities of Air/Air-Defense/Naval/Electronic Warfare/Logistics and differences in level of training. The Simulation also incorporates a detailed consideration of the terrain and trafficability of the three Baltic States and the northeast quadrant of Poland in order to set the operational constraints in the region. Beyond the trafficability of the region, the infrastructure is examined in terms of movement and the potential for

the destruction of movement capacity to expose military forces to destruction by indirect fires and aviation. The game makes clear that NATO defense planning needs to be constructed upon the understanding that the slower the tempo of any Russian advance into the Baltic States, the greater the need of Russian forces for logistics support and, as a result, the greater the vulnerability of the attacking force to logistics interdiction. Making Russian forces stop at as many river lines as possible to find or construct a way over the water barrier means that fuel is being consumed that must be trucked from Russia. Fuel is moved by soft-skinned vehicles that are not only vulnerable to fires, but have to be escorted – further reducing the amount of infantry that can be deployed with first echelon forces. Working with local officers made clear to Potomac Foundation Staff that much work needs to be done to pre-chamber bridges for destruction and to organize the tasks involved in preparing to turn the Baltic States into a hedgehog defense designed to sap Russian strength and break the momentum of an attack or expose the Russian rear to attack if bypassed.

Importance of Terrain

While history is replete with examples of smaller armed forces defeating larger forces due to a more effective use of terrain, most balance of force assessments – and, in fact, most of the board games examining a Russian invasion of the Baltic States that have recently become so popular – begin with a military balance focused on numbers of troops and various types of equipment as opposed to an examination of the battlefield terrain.⁴⁶³ Examination of Baltic security scenarios by The Potomac Foundation using its proprietary HEGEMON Simulation platform which features extensive terrain data, suggests that the Baltic States are very defensible; and proper operational planning and preparation can significantly alter the potential for the type of Russian

⁴⁶³ See, for example, David A. Shlapak and Michael Johnson, *Reinforcing Deterrence on NATO's Eastern Flank: Wargaming the Defense of the Baltics*, Santa Monica, California: RAND Corporation, 2016; and Richard Sokolsky, *The New NATO-Russia Military Balance: Implications for European Security*, Carnegie Endowment for International Peace: Task Force on U.S. Policy Toward Russia, Ukraine, and Eurasia project, March 13, 2017.

escalation as demonstrated in Ukraine. The terrain along the borders between the three Baltic States and the Russian Federation compel a force invading from the East to operate on multiple and relatively small axes of advance which can be blocked or ambushed. Unfortunately, given the population size of the Baltic States there are just too many axes for local light-infantry forces that not very mobile to cope effectively without assistance. (See Figure 24)

Given the military geography of the theater, the nature of the initial period of conflict would have decisive impact upon both NATO and the Russian Federation. Although modern tanks remain as the dominant force on the conventional battlefield, they are limited in some respects by the terrain upon which they fight. While the Baltic States constitute only 70% of the territory of the Federal Republic of Germany (FRG) during the Cold War, when included together with the northeast quadrant of Poland this NATO territory represents approximately the same amount of territory NATO prepared itself to defend along the central front during the Cold War. When one considers the population of the Baltic States alone, the density of population per square kilometer, however, is about 2.5 times less than was the Cold War FRG. On the surface, therefore, given the expectation for high-intensity armored warfare anticipated on the territory of the Cold War FRG, it might be reasonable to also expect that the population density of the Baltic States would allow for tank warfare on a scale even greater. Such a false conclusion would reinforce the conventional wisdom that the Baltic States are indefensible – meaning that they lack sufficient depth to absorb an initial assault.

Soft ground, such as swamps or marshes, can cause tank treads to become mired, potentially rendering a tank immobile. Dense forests, similar to those found in the Baltic region, prevent tank and other mechanized vehicle movement, causing them to be channeled through available clearings or along other rights of way. Rivers can become barriers to mechanized vehicle movement if either the river is deep

enough or if its embankments are too steep (or, frequently, too “soft”) for a vehicle to climb out of the river once it is crossed. Bridges across such barriers can provide a route across the barrier, but the bridges must be able to survive the weight of a modern battle tank, which can approach 68-short tons (almost 62 metric tons).⁴⁶⁴ Thus, the terrain will dictate the routes that adversaries must use to invade the Baltic countries. While some have concluded that board games suggest that Tallinn and Rīga might be captured in a Russian attack in 2-3 days,⁴⁶⁵ the trafficability of the terrain for armored vehicles as a factor of operations suggests, at the very least, “complexity.” It may be easy to move around brigades on a large-scale map during a board game, but doing so on terrain dominated by forests and water barriers is quite different. A major “take-away” from every run of the HEGEMON Baltic Campaign Simulation to date is that, even when little NATO reinforcement occurs, two weeks of combat are required to defeat the forces defending the Baltic States. The Baltic Campaign Simulations run to date suggest that the Baltic States are very defensible and, with appropriate NATO reinforcement (a point that RAND Corporation makes in its board game research), that the issues likely to be discussed after the defeat of the Russian Army would be the future of Kaliningrad and regime change in Moscow.

The challenges of the terrain in the Baltic States and the north-east quadrant of Poland explain why the Russian 6th Army has fewer tanks and more helicopters than any other Russian army. (See Figure 22) But the terrain does not mean that a conventional conflict in this terrain wouldn’t involve high-intensity warfare. Unfortunately, recent decades of fighting insurgents in the Middle East have eliminated any institutional memory concerning the utility and decisive nature of modern armored combat. Unarmored or lightly armored forces cannot stand up to an armored assault for long, and the Russians have not

⁴⁶⁴ The weight of a Russian T-72 Main Battle Tank exceeds 40 metric tons.

⁴⁶⁵ See David A. Shlapak and Michael Johnson, *Reinforcing Deterrence on NATO’s Eastern Flank: Wargaming the Defense of the Baltics*, Santa Monica, California: RAND Corporation, 2016.

forgotten the value of a combination of tanks (for their “shock” effect) and mechanized artillery (for their ability to suppress infantry employing anti-tank weapons) on the battlefield. As observed by Richard Sokolsky, the table of organization and equipment of Russian ground force units feature far more combat power than their NATO equivalents. In general, Sokolsky observed,

Russian forces can employ far more direct and indirect fire systems, which would severely stress the ability of NATO forces to halt Russia’s initial assault and hold territory. Russia has ten artillery battalions in the Western Military District, and most of these systems have greater range and rates of fire than their NATO counterparts. In addition, five surface-to-surface missile (SSM) battalions back these artillery formations. In comparison, NATO forces suffer from a serious deficit in tubed artillery, rocket launchers, and SSMs. In short, NATO lighter forces are outgunned by Russia.⁴⁶⁶

Furthermore, to “fix” Polish forces in defense of Warsaw rather than moving north to bolster defense of the Baltic States, Russia has reestablished the 1st Guards Tank Army on the border of Belarus. (See Figure 22)

In the Western Strategic Direction in Russia’s European Theater of Strategic Military Operations (*TVD*), the operational-strategic situation is actually very clear and can be articulated in a few hypotheses:

⁴⁶⁶ Richard Sokolsky, *The New NATO-Russia Military Balance: Implications for European Security*, Carnegie Endowment for International Peace: Task Force on U.S. Policy Toward Russia, Ukraine, and Eurasia project, March 13, 2017.

- Russian ground forces are over committed, and under-strength in terms of trained professionals versus conscripts; they can only attack on one Front with full support at one time without denuding other volatile areas or taking months to mobilize and train reserves;
- NATO's Eastern European Theater actually has three Fronts:
 - the Baltic Front which is under threat;
 - the Ukrainian/Black Sea Front which is under attack;
 - the Central Front – Poland along its border with Belarus (which has been primarily dormant since the Russo--Ukraine War began).
- The Central Front is the center of gravity for the entire Theater, and dramatically affects both the Baltic and Ukrainian/Black Sea Fronts as well.
- Russia cannot invade the Baltic states rapidly and with full force without first deploying into Belarus. NATO cannot effectively add significant reinforcements to either the Baltic or southern fronts without Poland.
- NATO needs to make every political and economic effort to try to convince Belarus that it is not in its interest to be a facilitator of Russian aggression and, as a result, a target of NATO interdiction.
- NATO needs to realize that Russia will increasingly view Poland as the West's center of gravity for defense of Eastern Europe, and will do everything possible to dissuade or deny it from successfully fulfilling that role – including nuclear intimidation.
- Ukraine provides a valuable forward defense for both NATO's central and southern regions; it is not in NATO's interest to see Ukraine defeated by direct Russian invasion or bled to death due to a lack of sufficient enforcement of the Minsk II ceasefire.

Eastern Europe is not the only NATO theater nor region where there are challenging issues – it is, however, the only area where there is a clear and present military threat that can be addressed with a military solution. Russia’s repeated bombastic nuclear threats need to be treated with the respect they deserve – ignored publicly but taken seriously militarily, with appropriate American, British, and French countermeasures.

NATO urgently needs to re-conceptualize its use of armored forces and refocus on the original core mission of destroying large tank armies on the high-intensity battlefield. This means relearning how to organize for the conduct of high-attrition battles in which the combatants could lose more tanks than most of the larger NATO States actually have in their active forces. It also means understanding the nature of contemporary warfare, how to organize forces for such combat, and how to support such forces logistically.

Over the past couple of years there has been no shortage of serious “think tank” and expert studies focused on the Russian challenge to Baltic security.⁴⁶⁷ Despite coming from a variety of perspectives, their assessments of the security situation and recommendations have a consistent message of serious concern over the dangers of the existing military imbalance and, in general, are in agreement on recommendations for urgent remediation.

- Although each of the Baltic countries have recently made serious efforts to expand their military capabilities and modernize their forces, neither individually nor in concert can

⁴⁶⁷ See, for example, “Securing the Nordic-Baltic region,” *NATO Review*, <http://www.nato.int/docu/Review/2016/Also-in-2016/security-baltic-defense-nato/EN/index.htm>

they match the strength of Russian offensive potential focused on the Baltic Front with sufficient readiness, operational depth, reserves and sustainability for a credible defense across a range of potential contingencies.

- Adjacent Russian armored combined-arms forces, complimented by supporting air, surface-to-surface missile, air-assault, naval, amphibious and special operations assets offer the allure of preemptive options for surprise attack.
- While that immediately proximate force may not be sufficient to consolidate and control the entire region – and certain areas, including the capitals of the Baltic states, are likely to offer extended resistance – Russia has a large number of interior ministry troops trained to conduct anti-partisan warfare.
- Thus, Baltic security depends upon external military support from the Alliance in order to defend both their territorial integrity as well as the aerial and naval domains influencing their prospects. “Much of NATO’s post-2014 assurance for its Eastern members is based on the understanding that countries at risk could be rapidly reinforced,” however, Russia’s quantitative and qualitative advantages when concentrated on this front “can impede access to, and constrain freedom of action in the Baltic region” and “raises questions around this plan as well as the Alliance’s capabilities in Europe.”⁴⁶⁸ In particular, the forward deployment of the Russian S-400 air defense missile system, the Iskander SS-26 surface-to-surface missile system,⁴⁶⁹ and shore based cruise missiles into Kaliningrad *Oblast* threaten to inhibit NATO

⁴⁶⁸ Director of International Institute of Strategic Studies, John Chipman, quoted in “Deployment of Russia’s armaments in Kaliningrad region limits NATO’s Capabilities,” *TASS*, (09.02.2016), at <
<http://tass.ru/en/defense/>

855511 >.

⁴⁶⁹ “During a snap exercise in early 2015, Moscow moved Iskander-M short-range ballistic missiles into Kaliningrad. *Ibid.*

reinforcement of the Baltic States as well as divert and limit the effectiveness of Western air assets.

- Weaknesses in local and reinforcing air defenses means that the primary opposition to Russian air attack must, at least initially, come from NATO combat air patrols which can be “overwhelmed by sheer numbers.” In this contested airspace, adjacent Russian air force and army aviation ground attack assets are sufficiently powerful to resist NATO’s quest for air superiority for several days – “creating ‘bubbles’ in space and time to launch massed waves of air attacks”⁴⁷⁰ – and thus impede both the survivability of defending light infantry as well as the maneuverability of heavier reinforcing forces.

In summary, the three Baltic states do not have sufficient “ready” forces to cover the border and prevent deep penetrations in short-warning contingencies; their reserve formations are structured as light-infantry and neither have the armor nor the artillery assets to hold out against stronger Russian forces; and NATO’s reinforcing forces are too late in arriving and too vulnerable in driving north up the nearly 1,000 kilometer Line of Communication (see Figure 24) that links the Baltic members with the rest of the Alliance, and too dependent on a level of air support that may not be available.

The recommendations from the various studies also cluster nicely in identifying important remedial actions that need to be taken sooner, rather than later:

- Creation of a multinational command structure integrating all the forces in the Baltic States and capable of planning and executing a “complex, fast-moving, highly fluid airland

⁴⁷⁰ Shlapak and Johnson, *Reinforcing Deterrence on NATO’s Eastern Flank*, *op. cit.*, p. 9.

campaign,” one “that can be safely be left to a pickup team (to do on the day); it requires careful preparation” – and recommending that this be at the Corps level;⁴⁷¹

- Existing Baltic defenses need to be supplemented with Allied assets of “at least three heavy brigades” and even then, only when it is “supported by adequate artillery, air defenses, and logistics capabilities, on the ground and ready to fight at the onset of hostilities appears able to avoid losing the war within the first few days;”⁴⁷²
- Both the local and reinforcing forces need to be augmented with additional armor and firepower to allow their maneuver battalions to avoid being overrun by Russian tanks or overwhelmed by multiple battalions of tube and rocket artillery.
- “An incursion by an outside power against a NATO Member will be timed for when that Member and NATO as a whole are least prepared to respond. To better confront this contingency, NATO must empower the Supreme Allied Commander in Europe, (SACEUR) with the authority to call snap exercises for the alliance to test and build the organization’s ability to respond in crisis.”⁴⁷³

Surprisingly, as difficult as the challenge appears, the opportunity to provide a realistic defense is not out of reach if the Alliance takes a

⁴⁷¹ Shlapak and Johnson, *Reinforcing Deterrence on NATO’s Eastern Flank*, *op. cit.*, p. 9. Smith and Hendrix, report observes that: “Only by working together on consistent basis can they learn to seamlessly integrate their disparate capabilities sets and form and form a truly effective combat team.” Julianne Smith & Jerry Hendrix, *Assured Resolve: Testing Possible Challenges to Baltic Security*, Washington, DC: Center for a New American Security, April 2016, p. 11.

⁴⁷² Shlapak and Johnson, *Reinforcing Deterrence on NATO’s Eastern Flank*, *op. cit.*, p. 8. The CNAS study, argued for the “return of two Armored Brigade Combat Teams to Europe that were removed in 2012 by the Obama Administration.”

⁴⁷³ Smith and Hendrix, *Assured Resolve*, *op. cit.*, pp. 12-13. This recommendation is echoed by the recent US Army study: LTC R. Reed Anderson, COL Patrick J. Ellis, LTC Antonio M. Paz, LTC Kyle A. Reed, LTC Lendy Renegar and LTC John T. Vaughan, Xx; “NATO should re-examine its Supreme Allied Commander Europe’s (SACEUR) authority to reposition forces in Europe.”

collective approach. This is an operating environment where a credible defense wins or loses on the margin. Local weakness and NATO inaction have stacked the deck against the defenders, but a series of near term remedial actions implementing the above recommendations are affordable and do what words and symbolism do not – make Russian planners hedge by adding more forces from other fronts which buys time for propitious NATO reinforcement and adds inhibiting anxiety to a General Staff that knows it is opening up its own vulnerabilities elsewhere.

Drawing upon Experience

As the former Senior U.S. Foreign Service Officer, Mary Ellen Connell, said recently, “we’ve done it before, so we know what we need to do to beat the Russians.” The starting point should be the successful concepts from NATO’s previous success, such as Forward Defense, Follow-on-Forces Attack, theater reinforcement such as Reforger Exercises, and Roll-Over.

The “forward defence” strategy developed over time by NATO, as the line of defense (initially on the Rhine) was moved to the centre of the Federal Republic of Germany (FRG) in 1958, then to the Iron Curtain itself in 1963 at the request of the FRG and spurred on by the United States. The idea was to defend the entirety of the member nations (including the FRG and the Netherlands) and to be as close as possible to Berlin to give assistance if necessary.⁴⁷⁴ Thus, the evolution of a rising perception of threat and commitment to the Baltic States and Poland are not all that different than the historical experience with Germany joining NATO in 1954 and being permitted to form an army in 1955.

⁴⁷⁴ NATO – News: “Forward Defence”: A NATO Archives seminar on NATO’s Early Military Planning for Central Europe, 09-Dec.-2013, http://www.nato.int/cps/en/natohq/news_109043.htm?selectedLocale=en

Follow-on-Forces Attack (FOFA) was "designed to attack with conventional weapons those enemy forces which stretch from just behind the troops in contact to as far into the enemy's rear as our target acquisition and conventional weapons systems will permit" in order to "reduce to a manageable ratio ... the number of enemy forces arriving at [NATO's] General Defensive Position."⁴⁷⁵ As were the NATO decisions taken during the Wales and Warsaw Summits to counter a determined Russian military buildup, FOFA was envisioned as an appropriate "counter [to] the Warsaw Pact's relentless buildup of conventional weapons and to counter their reliance on an offensive doctrine calling for the extensive use of echeloned forces. FOFA was perceived to be part of the answer to those dilemmas and the use of Emerging Technologies (ET) was seen as the key to FOFA."⁴⁷⁶ A contemporary version of FOFA directly raises the of targeting the aggressor's territory.

Exercise Reforger (from **return of forces to Germany**) was an annual exercise conducted to demonstrate both American commitment and capacity to defend Europe. First conducted in January 1969, Reforger involved the field training of as many as 125,000 troops. Employing as many as six prepositioned division sets of equipment and supplies in Europe in the Netherlands, Belgium and Germany, the equipment was set up in unit configurations to aid in force creation and movement to support the U.S. Army's General Defensive Position (GDP). Reforger was "exercised" routinely so that it could have easily have become **Operation Reforger** if necessary. This experience with prepositioning and the exercising of rapid reinforcement certainly offers lessons for the development of similar plans for the defense of the Baltic States and Poland.⁴⁷⁷

"Rollover" is also no great mystery, since it was what was done at the end of the Soviet era, when downsizing NATO Members turned their "excess" equipment over to allow other Member nations to modernize

⁴⁷⁵ Bernard W. Rogers, "Follow-on Forces Attack: Myths and Realities," *NATO Review*, Number 6, December 1984, p. 2.

⁴⁷⁶ Lieutenant Colonel Michael J. Diver, *NATO's Follow-On Forces Attack (FOFA) Concept: Past, Present and Future*, USAWC NATO Defense College Fellowship Program Paper, Rome: NATO Defence College, 1 July 1990, p. 1.

⁴⁷⁷ The experience in Norway with the storage depots for a U.S. MAB (Marine Amphibious Brigade) could offer useful lessons as well.

their equipment. While most of the NATO armies will need the equipment they possess, the United States Army has plenty of excess equipment that it will never use. The Americans have some 3,500 Main Battle Tanks, some 2,000 Infantry Fighting Vehicles, and some 500 Self-Propelled Artillery that its allies could man.⁴⁷⁸

Drawing upon the past is necessary, but insufficient however. The Russian Ground Forces are, and will continue to be short of manpower. This is the underlying reason for its search for asymmetrical means by which to off-set the West's strengths. Furthermore, Russia's inability to mass produce the advanced technologies necessary to support the manufacture of its own advanced weapons designs means that the West must sell the Russian's the rope with which to hang us. Thus, rebuilding NATO's capacity to fight, and thereby deter, Russian military aggression must be matched by our ability to generate and sustain a narrative conducive to support, both from the broader public as well as from elites. Perceived inequity in the status quo is the target of Moscow's information warfare for the masses, which "is now the main type of war, preparing the way for military action."⁴⁷⁹ Post-literate ignorance – "where nothing is vetted, context is absent, and lies proliferate"⁴⁸⁰ – and greed among delusional elites are exploited to undermine the political culture of freedom

⁴⁷⁸ *The Military Balance 2015*, London: Routledge, February 2015.

⁴⁷⁹ Dmitry Kieselev, as quoted in Peter Pomerantsev, "Inside Putin's Information War," *POLITICO Magazine*, January 4, 2015.

⁴⁸⁰ Robert D. Kaplan, "An unrealistic foreign policy," *The Washington Post*, November 13, 2016, p. A23.

APPENDIX I

DATABASE OF FORCES

Nicholas Myers with Charles Long and Joven Maranan

The following is a breakdown of the forces available to each nation as reported in IISS' *The Military Balance, 2016*. This excludes dismounted infantry, whose manning numbers tend to be classified. In addition, a list of formations, generally at brigade or wing level, is given; maritime forces are not included in this list.

1. Belarus

Ground Forces			
Main Battle Tanks		T-72	446
		T-80	69
Armored Infantry Fighting Vehicles		BMP-2	875
		BRM-1	136
Armored Personnel Carriers	Tracked	MT-LB	50
	Wheeled	BTR-70 BTR-80	39 153
Artillery	Self-Propelled	2S1 (122-mm)	198
		2S3 (152-mm)	108
		2S5 (152-mm)	116
		2S19 (152-mm)	12
	Towed	D-30	48
		2A36 (152-mm)	48
2A65 (152-mm)		132	
Multiple Rocket Launch	BM-21 (122-mm)	126	
	9P140 Uragan (220-mm)	72	
	9A52 Smerch (300-mm)	40	
	Polonez (300-mm)	4	
Mortars	2S12 (120-mm)	61	
Anti-Tank	Self-Propelled	9P148 Konkurs	126
		9P149 Shturm	110
	MANPATS	9K111 Fagot (AT-4 Spigot) 9K113 Konkurs (AT-5 Spandrel) 9K114 Shturm (AT-6)	Unknown

		Spiral) 9K115 Metis (AT-7 Saxhorn)	
Air Defense	Self-Propelled	9K37 Buk (SA-11 Gadfly) S-300V (SA-12A Gladiator) 9K35 Strela-10 (SA-13 Gopher) 9K33 Osa (SA-8 Gecko) S-300PS (SA-10B Grumble) 9K332 Tor-M2E (SA-15 Gauntlet)	Unknown
	Fixed	S-200 (SA-5 Gammon)	Unknown
Missiles	Tactical	9M79 Tochka (SS-21 Scarab) Scud	36 60
Helicopters	Attack	Mi-24 Hind	5
	Transport	Mi-26 Halo Mi-8 Hip Mi8MTV-5	5 8 6
No Belarusian Navy – Landlocked Country			
Air Force			
Superiority Fighters	4 th Generation	MiG-29S/UB Fulcrum	24
Attack Fighters	4 th Generation	Su-25K/UBK Frogfoot A/B	12
Transport	Heavy	Il-76 Candid	2
	Medium	An-12 Cub	3
	Light	An-24 Coke An-26 Curl Tu-134 Crusty	1 4 1

Maneuver	Combat Support	Air Formations
<i>Mechanized</i> 6 th Guards Mechanized Brigade (Hrodna) 11 th Guards Mechanized Brigade (Slonim) 19 th Guards Mechanized Brigade (ZaslonoVo) 50 th Mechanized	<i>Artillery</i> 231 st Mixed Artillery Brigade (Borovka)	<i>Ground Attack</i> 61 st Assault Regiment (Baranovichi) 116 th Guards Assault Regiment (Lida)

Brigade (Baranovichi) 120 th Guards Mechanized Brigade (Minsk)		
<i>Air Assault</i> 38 th Mobile Brigade (Brest) 103 rd Mobile Brigade (Polotsk)	<i>Engineer</i> 7 th Engineering Regiment (Barysau)	<i>Fighter-Bombers</i> 50 th Mixed Air Regiment (Machulishchy)
<i>Attack Helicopter</i> 181 st Combat Helicopter Regiment (Pruzhan'y)	<i>Special Forces</i> 5 th Spetsnaz Brigade (Maryina Horka)	
	<i>Electronic Warfare</i> 1 st Signals Brigade (Minsk) 83 rd Signals Brigade (Minsk)	

2. Denmark

Ground Forces			
Main Battle Tanks		Leopard 2A4/5	34
Recce Vehicles		Eagle IV	84
Armored Infantry Fighting Vehicles		CV9030 Mk II	44
Armored Personnel Carriers	Tracked	M113	235
	Wheeled	Piranha III	79
	Protected Patrol Vehicles	Cougar	40
Artillery	Self-Propelled	M109 (155-mm)	12
	Mortars	Soltam K6B1 (120-mm)	12
Anti-Tank	MANPATS	TOW Carl Gustav	Unknown 186
Air Defense	MANPAD	FIM-92A Stinger	Unknown
Helicopters	Naval	Super Lynx Mk90B	6
		MH-60R Seahawk	3
	Multirole	AS550 Fennec	8
	Transport	AW101 Merlin	13
Navy			
Surface Combatants	Destroyers	<i>Iver Huitfeldt</i> -class	3
	Frigates	<i>Thetis</i> -class	4

Patrol and Coastal		<i>Knud Rasmussen</i> -class	2
		<i>Agdlek</i> -class	1
		<i>Diana</i> -class	6
Mine Warfare	Mine Countermeasures	MSF MK-I	4
		Holm	2
Air Force			
Superiority Fighters	4 th Generation	F-16AM Fighting Falcon	34
		F-16BM Fighting Falcon	10
Transport	Medium	C130J-30 Hercules	4
	Light	CL-604 Challenger	4

Maneuver	Combat Support	Air Formations
<i>Mechanized</i> 1 st Brigade (Haderslev) 2 nd Brigade (Slagelse)	<i>Artillery</i> 1 st Artillery Battalion (Oksbol)	<i>Fighter-Bombers</i> Fighter Wing (Skrydstrup)
	<i>Engineer</i> Engineering Center (Skive)	
	<i>Electronic Warfare</i> 2 nd CIS Battalion (Frederica) Electronic Warfare Company (Frederica)	
	<i>Special Forces</i> Special Operations Command (Aalborg)	

3. Estonia

Ground Forces			
Armored Personnel Carriers	Wheeled	XA-180 Sisu	56
		XA-188 Sisu	80
		BTR-80	15
	Protected Vehicles	Patrol Mamba	7
Artillery	Towed	D-30 (H 63) (122-mm)	42
		FH-70 (155-mm)	24
	Mortars	B455 (81-mm)	41
		NM 95 (81-mm)	10
		M252 (81-mm)	80

		2B11 (120-mm) M/41D (120-mm)	14 165
Anti-Tank	MANPATS	FGM-148 Javelin Milan IMI MAPATS M40A1 (106-mm) Carl Gustav (84-mm) PV-1110 (90-mm)	Unknown Unknown Unknown 30 Unknown 130
Air Defense	MANPAD	Mistral	Unknown
Helicopters	Transport	R-44 Raven II	4
Navy			
Surface Combatants	Patrol and Coastal	<i>Ristna</i>	1
Mine Warfare	Mine Countermeasures	<i>Tasuja</i> -class <i>Admiral Cowan</i> -class	1 3
Air Force			
Transport	Light	An-2 Colt	2

Maneuver	Combat Support	Air Formations
<i>Motorized</i> 1 st Infantry Brigade (Tapa)	<i>Special Forces</i> Special Operations Task Force (Tallinn)	
<i>Infantry</i> 2 nd Infantry Brigade (Luunja)		

4. Finland

Ground Forces			
Main Battle Tanks		Leopard 2A4 Leopard 2A6	100 20
Armored Infantry Fighting Vehicles		BMP-2 CV90	94 102
Armored Personnel Carriers	Tracked	MT-LBu MT-LBV	40 102
	Wheeled	XA-180/185 Sisu	260
		XA-202 Sisu	101
		XA-203 Sisu AMV (XA-360)	48 62
Artillery	Self-Propelled	2S1 (PsH 74) (122-mm)	36

	Towed	D-30 (H 63) (122-mm) M-46 (K 54) (130-mm) K 83/GH-52 (K 98) (155-mm)	234 36 54
	Multiple Rocket Launch	M270 (227-mm)	22
	Mortars	KRH 92 XA-36A AMOS	261 4
Anti-Tank	MANPATS	Spike TOW 2	Unknown
Air Defense	Self-Propelled	ASRAD (ITO 05) Crotale NG (ITO 90) NASAMS II FIN (ITO 12) 9K37 Buk-M1 (ITO 96) ItK 95/ZU-23-2 (ItK 61)	16 20 24 Unknown Unknown
	MANPAD	FIM-92 Stinger (ITO 15) RBS 70 (ITO 05/05M)	Unknown Unknown
Helicopters	Multirole	Hughes 500D Hughes 500E	5 2
	Transport	NH90 TTH	20
Navy			
Surface Combatants	Patrol and Coastal	<i>Rauma</i> -class <i>Hamina</i> -class <i>Jehu</i> -class	4 4 10
Mine Warfare	Mine Countermeasures	<i>Katanpää</i> -class <i>Kiiski</i> -class <i>Kuha</i> -class	3 4 3
	Minelayers	<i>Hameenmaa</i> -class <i>Pansio</i> -class	2 3
Amphibious	Landing Platform	<i>Kampela</i> -class	1
Air Force			
Superiority Fighters	4 th Generation	F/A-18C Hornet F/A-18D Hornet	62 7
Intelligence, Reconnaissance	Surveillance,	F-27-400M	1
ELINT		C-295M	1
Transport	Light	C-295M Learjet 35A PC-12NG	2 3 5

Maneuver	Combat Support	Air Formations
<i>Armored</i> Armored Brigade (Parloannummi)	<i>Special Forces</i> Utti Jaeger Regiment (Utti)	<i>Fighter-Bombers</i> 11 th Fighter Squadron (Ravaniemi) 21 st Fighter Squadron (Tampere-Pirkkala) 31 st Fighter Squadron (Kuopio)
<i>Motorized</i> Pori Brigade (Sakyla)		
<i>Mechanized</i> Karelia Brigade (Vekaranjavi)		
<i>Light Infantry</i> Kainuu Brigade (Kajaani) Jaeger Brigade (Sodankyla)		

5. Germany

Ground Forces				
Main Battle Tanks		Leopard 2A6	286	
		Leopard 2A7	20	
Recce Vehicles		Fennek	166	
		Wiesel	25	
Armored Infantry Fighting Vehicles		Marder 1A2/A3/A4/A5	390	
		Puma	88	
		Wiesel	87	
Armored Personnel Carriers	Tracked	Bv-206D/S	194	
		M113	259	
	Wheeled	Boxer	272	
		TPz-1 Fuchs	531	
	Protected Patrol Vehicles	Dingo 2	316	
		Eagle IV	495	
		Eagle V	176	
Artillery	Self-Propelled		PzH 2000 (155-mm)	99
	Multiple Launch	Rocket	227-mm	38
	Mortars		Tampella (120-mm)	86
Anti-Tank	Self-Propelled		Wiesel	64
	MANPATS		Milan	Unknown

Air Defense	Self-Propelled	ASRAD Ozelot	10
	Towed	MIM-104F Patriot PAC-3 C-RAM MANTIS	30 12
Helicopters	Attack	Tiger	42
	Naval	Lynx Mk88A	22
		Sea King Mk41	21
	Multirole	Bo-105M/P1/P1A1	83
Transport		NH90	48
		Bell 205 (UH-1D Iroquois)	39
		H135	14
		H145M	2
Navy			
Submarines	SSK	Type-212A	6
Surface Combatants	Destroyers	<i>Brandenburg-class</i>	4
		<i>Sachsen-class</i>	3
	Frigates	<i>Bremen-class</i> <i>Braunschweig-class</i>	3 5
Patrol and Coastal		<i>Bad Bramstedt-class</i>	3
		<i>Bredstedt-class</i>	1
		<i>Sassnitz-class</i>	2
		<i>Prignitz-class</i>	5
		<i>Rettin-class</i>	1
Mine Warfare	Mine Countermeasures	<i>Frankenthal-class</i>	10
		<i>Kulmbach-class</i>	2
		<i>Ensdorf-class</i>	2
		<i>Seehund-class</i>	18
Amphibious	Landing Platform	Type-520	2
Air Force			
Superiority Fighters	4 th Generation	Eurofighter Typhoon	121
Multirole Fighters	4 th Generation	Tornado IDS	68
Intelligence, Reconnaissance	Surveillance,	AP-3C Orion	8
Electronic Warfare		Tornado ECR	20
Tankers		A310 MRTT	4
Transport	Heavy	A400M Atlas	1
	Medium	C-160D Transall	40
	Light	Do-228	2
A310		1	

		A340	2
		A319	2
		Global 5000	4

Maneuver	Combat Support	Air Formations
<i>Armored</i> 9 th Armored Brigade (Munster) 21 st Armored Brigade (Augustdorf) 12 th Armored Brigade (Amberg)	<i>Artillery</i> 325 th Artillery Battalion (Munster) 345 th Artillery Battalion (Idar-Oberstein)	<i>Fighter Bombers</i> 31 st Tactical Air Wing (Boelcke Norvenich) 33 rd Tactical Air Wing (Buchel) 51 st Tactical Air Wing (Immelmann Schleswig) 73 rd Tactical Air Wing (Steinhoff Rostock-Laage) 74 th Tactical Air Wing (Neuburg)
<i>Mechanized</i> 41 st Mechanized Infantry Brigade (Neubrandenburg) 37 th Mechanized Infantry Brigade (Frankenberg)	<i>Special Forces</i> Special Forces Command (Calw)	<i>Air Defense</i> 1 st Flugabwehrraketengeschwader (Hussum)
<i>Mountain</i> 23 rd Mountain Infantry Brigade (Bad Reichenhall)		
<i>Airborne</i> 26 th Airborne Brigade (Saarlouis)		
<i>Attack Helicopters</i> 36 th Attack Helicopter Regiment (Muellheim)		

6. Latvia

Ground Forces			
Recce Vehicles		FV107 Scimitar	9+
Armored Personnel Carriers	Tracked	FV103 Spartan	6+
		FV105 Sultan	2+

Artillery	Towed	K-53 (100-mm)	23
	Mortars	L16 (81-mm) M120 (120-mm)	28 25
Anti-Tank	MANPATS	Spike-LR Carl Gustav (84-mm) Pvpj 1110 (90-mm)	Unknown
Air Defense	Towed	L/70	24
	MANPAD	RBS-70	Unknown
Helicopters	Multirole	Mi-17 Hip H	4
	Transport	PZL Mi-2 Hoplite	2
Navy			
Surface Combatants	Patrol and Coastal	<i>Skrunda</i> -class	5
		<i>Astra</i> -class	1
		KBV 236	5
Mine Warfare	Mine Countermeasures	<i>Imanta</i> -class	5
		<i>Vidar</i> -class	1
Air Force			
Transport	Light	An-2 Colt	4

Maneuver	Combat Support	Air Formations
<i>Motorized</i> Mechanized Infantry Brigade (Adazi)	<i>Special Forces</i> Special Tasks Unit (Suzi)	<i>Air Defense</i> Air Defense Wing (Lielvarde) 17 th Air Defense Battalion (Riga)
<i>Light Infantry</i> 1 st National Guard Brigade (Liepaja) 2 nd National Guard Brigade (Rezekne) 3 rd National Guard Brigade (Riga)	<i>Engineer</i> 54 th Engineer Battalion (Ogre)	

7. Lithuania

Ground Forces			
Armored Personnel Carriers	Tracked	M113A1	234
Artillery	Towed	M101 (105-mm)	18
	Mortars	2B11	5
		M/41D M113	10 15

Anti-Tank	Self-Propelled	M1025A2 HMMWV with Javelin	10
	MANPATS	Javelin Carl Gustav (84-mm)	Unknown
Air Defense	MANPAD	RBS-70 Stinger	Unknown
Helicopters	Multirole	AS365M3 Dauphin	3
	Transport	Mi-8 Hip	3
Navy			
Surface Combatants	Patrol and Coastal	Zematis-class	3
		Selis-class (Ex- Storm)	NOR 1
Mine Warfare	Mine Countermeasures	Suduvis-class	3
		Skulvis-class	2
		Jotvingis-class	1
Air Force			
Transport	Medium	C-27J Spartan	3
	Light	L-410 Turbolet	2

Maneuver	Combat Support	Air Formations
<i>Motorized</i> Iron Wolf Mechanized Brigade (Rukla) 4 unknown Mech battalion 1 artillery bn	<i>Engineer</i> Juozas Vitkus Engineer Battalion (Prienu)	<i>Air Defense</i> Air Defense Battalion (Siauliai)
<i>Light Infantry</i> 1 unknown MOT bde 2 MOT INF Bn King Mindaugas Motor Infantry Battalion (Panevezys) Grand Duchess Birute Motor Infantry Battalion (Alytus) Grand Duke Butigeidis Motor Infantry Battalion (Klaipeda)	<i>Special Forces</i> Special Forces Unit (Kaunas)	

8. Norway

Ground Forces			
Main Battle Tanks		Leopard 2A4	52
Recce Vehicles		TPz-1 Fuchs NBS	Unknown
Armored Infantry Fighting Vehicles		CV9030N	116
Armored Personnel Carriers	Tracked	M113	315
	Wheeled	XA-186 Sisu/XA-200 Sisu	75
	Protected Patrol Vehicles	Dingo II IVECO	20 Unknown
Artillery	Self-Propelled	M109A3GN (155-mm)	18
	Mortars	M106A1 (81-mm)	24
		M125A2 (81-mm) L-16 (81-mm)	12 150
Anti-Tank	MANPATS	Javelin Carl Gustav (84-mm)	Unknown
Air Defense	Towed	NASAMS II	Unknown
Helicopters	Naval	NH90 NFH	6
	Multirole	Bell 412HP Bell 412SP	6 12
Navy			
Submarines	SSK	<i>Ula</i> -class	6
Surface Combatants	Destroyers	<i>Fridtjof Nansen</i> -class	5
	Patrol and Coastal	<i>Skjold</i> -class	6
Mine Warfare	Mine Countermeasures	<i>Alta</i> -class	3
		<i>Oskoy</i> -class	3
Amphibious	Landing Platform	S90N	16
Air Force			
Multirole Fighters	4 th Generation	F-16AM Fighting Falcon	47
		F-16BM Fighting Falcon	10
Intelligence, Reconnaissance	Surveillance,	P-3C Orion	4
		P-3N Orion	2
Electronic Warfare		Falcon 20C	3
Transport	Medium	C-130J-30 Hercules	4

Maneuver	Combat Support	Air Formations
<i>Mechanized</i> Northern Brigade (Bardufoss)	<i>Electronic Warfare</i> EW Battalion (Setermoen)	<i>Fighter-Bombers</i> 331 st Squadron (Bodo) 338 th Squadron (Orland)
<i>Motorized</i>		<i>Air Defense</i>

King's Guard (Oslo)		132 nd Air Defense Squadron (Bodo) 138 th Air Defense Squadron (Orland)
---------------------	--	--

9. Poland

Ground Forces			
Main Battle Tanks		Leopard 2A4	142
		Leopard 2A5	105
		PT-91 Twardy	233
		T-72/T-72M1D/T-72M1	505
Recce Vehicles		BRDM-2	237
		BWR	37
		WD R-5	92
Armored Infantry Fighting Vehicles		BMP-1	1,268
		Rosomak	700
Armored Personnel Carriers	Tracked		
	Wheeled		
	Protected Vehicles	Patrol	Cougar M-ATV Maxxpro
			40 45 30
Artillery	Self-Propelled		2S1 (122-mm) M-77 Dana (152-mm) Krab
			292 111 2
	Towed		
	Multiple Launch	Rocket	BM-21 (122-mm) RM-70 (122-mm) WR-40 Langusta (122-mm)
			75 30 75
	Mortars		M-98 (98-mm) M120 (120-mm)
			89 95
Anti-Tank	Self-Propelled		
	MANPATS		9K11 Malyutka (AT-3 Sagger) 9K111 Fagot (AT-4 Spigot) Spike-LR
			Unknown
Air Defense	Self-Propelled		2K12 Kub (SA-6 Gainful) 9K33 Osa-AK (SA-8 Gecko) ZSU-23-4
			20 64 8

		ZSU-23-4MP Biala S-125 Neva SC (SA-3 Goa)	20 17
	Fixed	S-200C Vega (SA-5 Gammon)	1
	Towed	ZU-23-2 ZUR-23-2KG/PG	252 72
	MANPAD	9K32 Strela-2 (SA-7 Grail) GROM	Unknown
Missiles	Anti-Ship	NSM	6
	Silo		
	TEL		
Helicopters	Attack	Mi-24D/V Hind D/E	28
	Naval	Mi-14PL Haze	7
		SH-2G Super Seasprite	4
	Multirole	Mi-8MT Hip	7
		Mi-17 Hip H	3
		Mi-17AE Hip	1
		Mi-17-1V Hip	5
PZL Mi-2URP Hoplite		16	
Transport	PZL W-3W/WA Sokol	24	
	PZL W-3PL Gluszec	8	
	Mi-8 Hip	9	
	Mi-8T Hip	7	
	PZL Mi-2 Hoplite	25	
PZL W-3A Sokol	1		
PZL W-3T Sokol	2		
PZL W-3AE Sokol	2		
Navy			
Submarines	SSBN		
	SSN		
	SSK	<i>Sokol-class</i> <i>Orzel-class</i>	4 1
Surface Combatants	Fixed-Wing Carriers		
	Rotary Carriers		
	Cruisers		
	Destroyers		
	Frigates	<i>Pulaski-class</i>	2
	Patrol and Coastal	<i>Kaszub-class</i> <i>Orkan-class</i>	1 3
Mine Warfare	Mine	<i>Project 890-class</i>	4

	Countermeasures	<i>Kontraadmiral Xavery</i> <i>Czernicki-class</i> <i>Mamry-class</i> <i>Krogulec-class</i> <i>Goplo-class</i> <i>Gardno-class</i>	1 4 3 1 12
	Minelayers		
Amphibious	Landing Platform		
	Landing Ship Heavy	<i>Lublin-class</i>	5
	Landing Ship Other	<i>Deba-class</i>	3
Air Force			
Superiority Fighters	5 th Generation		
	4 th Generation	MiG-29A Fulcrum MiG-29UB Fulcrum	26 6
	3 rd Generation		
Multirole Fighters	5 th Generation		
	4 th Generation	F-16C Block 52+ Fighting Falcon F-16D Block 52+ Fighting Falcon	36 12
	3 rd Generation	Su-22M-4 Fitter Su-22UM3K Fitter	12 6
Attack Fighters	5 th Generation		
	4 th Generation		
	3 rd Generation		
Intelligence, Reconnaissance	Surveillance,	An-28TD Bryza M-28B Bryza	2 2
	ELINT		
Airborne Early Warning & Control			
Search & Rescue			
Electronic Warfare			
Tankers			
Transport	Heavy		
	Medium	C-130E Hercules	5
	Light	C-295M M-28 Bryza TD	16 23

Maneuver	Combat Support	Air Formations
<i>Airborne</i> 6 th Airborne Brigade	<i>Engineer</i> 1 st Engineer Regiment	<i>Naval Aviation</i> 28 th Naval Aviation

(Krakow)	(Brzeg) 2 nd Engineer Regiment (Kazun) 5 th Engineer Regiment (Szczecin)	Squadron (Gdynia) 1 st Naval Aviation Squadron (Gdynia)
<i>Armored</i> 10 th Armored Cavalry Brigade (Swietoszow) 34 th Armored Cavalry Brigade (Zagan) 1 st Warsaw Armored Brigade (Wesola) 9 th Armored Cavalry Brigade (Braniewo)	<i>Electronic Warfare</i> 8 th EW Battalion (Grudziadz) 9 th Signal Battalion (Bialobrzegi)	<i>Air Defense</i> 4 th Air Defense Regiment (Czerwiensk) 8 th Air Defense Regiment (Koszalin) 15 th Air Defense Regiment (Goldap)
<i>Mechanized</i> 17 th Mechanized Brigade (Miedzyrecz) 2 nd Legion Mechanized Brigade (Zlocieniec) 12 th Mechanized Brigade (Szczecin) 15 th Mechanized Brigade (Gizycko) 20 th Mechanized Brigade (Bartoszyce)	<i>Artillery</i> 23 rd Artillery Regiment (Boleslawiec) 5 th Lubusz Artillery Regiment (Sulechow) 11 th Artillery Regiment (Wegorzewo)	<i>Multirole Fighters</i> 1 st Tactical Air Wing (Swidin) 2 nd Tactical Air Wing (Poznan)
<i>Attack Helicopters</i> 1 st Aviation Brigade (Inowroclaw)	<i>Special Forces</i> Jednostka Wojskowa Formoza (Gdynia)	
<i>Air Assault</i> 25 th Air Cavalry Brigade (Tomaszow Mazowiecki)		
<i>Motorized</i> 7 th Coastal Defense Brigade (Slupsk)		
<i>Mountain</i> 21 st Podhale Rifles Brigade (Rzeszow)		

10. Russian Federation

Russia's forces are arranged in four military districts (West, South, Central, and East). The first table lists units from all four districts together, but the formations thereafter are separated into the Western and Central Military Districts.

Ground Forces			
Main Battle Tanks		T-72B/BA	1,100
		T-72B3	800
		T-80BV/U	450
		T-90/T-90A	350
Recce Vehicles		BRDM-2/2A	1,000
		BRM-1K	700
Armored Infantry Fighting Vehicles		BMP-1	500
		BMP-2	3,000
		BMP-3	500
		BTR-80A	100
		BTR-82A/AM	800
		BMD-4	30
		BMD-4M	12
Armored Personnel Carriers	Tracked	BMO-T MT-LB	Unknown 3,500
	Wheeled	BTR-60 BTR-70 BTR-80 BPM-97 <i>Dozor</i>	800 200 1,500 100+
Artillery	Self-Propelled	2S1 (122-mm)	150
		2S3 (152-mm)	800
		2S5 (152-mm)	100
		2S19 (152-mm)	450
		2S33 (152-mm)	36
		2S7M (203-mm)	60
	Towed	2A65 (152-mm)	150
Multiple Launch Rocket	Rocket	BM-21 (122-mm)	550
		9P140 Uragan (220-mm)	200
		TOS-1A 9A52 Smerch (300mm)	Unknown 100
Mortars		2B14 (82-mm)	800+
		2S12 (120-mm)	700

		2S4 (240-mm)	40
Anti-Tank	Self-Propelled	BMP-T 9P149 9P149/M 9P157-2 BTR RD	Unknown Unknown Unknown Unknown 100
	MANPATS	9K111M Fagot (AT-4 Spigot) 9K113-1 Konkurs (AT-5 Spandrel) 9K115 Metis (AT-7 Saxhorn) 9K115-1 Metis-M (AT-13 Saxhorn 2) 9K135 Kornet (AT-14 Spriggan)	Unknown Unknown Unknown Unknown Unknown
Air Defense	Self-Propelled	S-300V (SA-12 Gladiator/Giant) S-300V4 (SA-23) 9K66 Pantsir-S1 (SA-22 Greyhound) 9K317 Buk-M1/M2 (SA-11 Gadfly/SA-17 Grizzly) 9K33M3 Osa-AKM (SA-8B Gecko) 9K35M3 Strela-10 (SA-13 Gopher) 9K330/1/2 Tor-M (SA-15 Gauntlet) 2K22M Tunguska (SA-19 Grison) ZSU-23-4 (23-mm)	240 Unknown 430 Unknown 420 120 250 350+ Unknown 400 Unknown
	Towed	ZU-23-2 (23-mm) S-60 (57-mm)	Unknown Unknown
	MANPAD	9K310 Igla-1 (SA-16 Gimlet) 9K38 Igla (SA-18 Grouse) 9K333 Verba	Unknown

		9K338 Igla-S (SA-24 Grinch) 9K34 Strela-3 (SA-14 Gremlin)	
	Missile Defense	53T6 (ABM-3 Gazelle)	68
Missiles	Tactical	9K79-1 Tochka-U (SS-21B Scarab) 9K720 Iskander-M (SS-26 Stone)	48 72
	Silo	RS-20 (SS-18 Satan) RS-18 (SS-19 Stiletto) RS-12M Topol (SS-25 Sickle) RS-12M2 Topol-M (SS-27M1) RS-24 Yars (SS-27M2)	54 30 ~90 60 67
	TEL	RS-12M (SS-25 Sickle) RS-12M2 Topol-M (SS-27M1)	108 18
	Attack	Ka-52A Hokum B Mi-24D/V/P Hind Mi-28N Havoc B Mi-35 Hind	90+ 100 90+ 60+
Helicopters	Naval	Ka-27 Helix Mi-14 Haze A Mi-8 Hip J Ka-31R Helix Ka-27PS Helix D Mi-14PS Haze C	63 20 8 2 16 40
	Transport	Mi-26/Mi-26T Mi-8/Mi-8MT/Mi-8MTSh/Mi-8MTV-5	32 306
	Navy		
Submarines	SSBN	<i>Kalmar</i> -class (Delta III) <i>Delfin</i> -class (Delta IV) <i>Akula</i> -class (Typhoon) <i>Borey</i> -class	3 6 1 3
	SSGN	<i>Antyey</i> -class (Oscar II) <i>Yasen</i> -class (Graney)	8 1
	SSN	<i>Schuka-B</i> -class (Akula II)	2

		<i>Schuka-B</i> -class (Akula I)	9
		<i>Kondor</i> -class (Sierra II)	2
		<i>Barracuda</i> -class (Sierra I)	1
		<i>Schuka</i> -class (Victor III)	3
	SSK	<i>Paltus</i> -class (Kilo)	16
		<i>Varshavyanka</i> -class (Kilo)	6
		<i>Lada</i> -class	1
Surface Combatants	Fixed-Wing Carriers	<i>Orel</i> -class (<i>Admiral Kuznetsov</i>)	1
	Cruisers	<i>Orlan</i> -class (Krov)	2
		<i>Atlant</i> -class (Slava)	3
	Destroyers	<i>Sarych</i> -class (Sovremenny))	5
		<i>Fregat</i> -class (Udaloy I)	8
		<i>Fregat</i> -class (Uddaloy II)	1
		<i>Komsomolets Ukrainy</i> -class (Kashin)	1
	Frigates	<i>Admiral Grigorovich</i> -class (Krivak IV)	2
		<i>Jastreb</i> -class (Neustrashiny)	2
		<i>Steregushchiy</i> -class (Project 20380)	1
<i>Steregushchiy</i> -class (Project 20381)		3	
<i>Gepard</i> -class		2	
<i>Burevstnik</i> -class (Krivak I)		1	
<i>Burevestnik M</i> -class (Krivak II)		1	
Patrol and Coastal	<i>Grad Sviyazhsk</i> -class (Buyan-M)	5	
	<i>Sivuch</i> -class (Dergach)	2	
	<i>Ovod</i> -class (Nanuchka III)	12	
	<i>Albatros</i> -class (Grisha III)	1	
	<i>Albatros</i> -class (Grisha V)	19	
	<i>Astrakhan</i> -class (Buyan)	3	
	<i>Parchim II</i> -class	6	
	<i>Molnya</i> -class (Tarantul II)	3	
	<i>Molnya</i> -class (Tarantul III)	18	
	<i>Grachonok</i> class	12	

		<i>Raptor</i> -class	8
		<i>Mangust</i> -class	2
		<i>Vekhr</i>-class (Matka)	3
		<i>Sokol</i>-class (Mukha)	4
Mine Warfare	Mine Countermeasures	<i>Rubin</i> -class (Gorya)	2
		<i>Akvamaren</i> -class (Natya)	10
		<i>Agat</i> -class (Natya II)	1
		<i>Yakhont</i> -class (Sonya)	21
		Project 1258	2
		<i>Sapfir</i> -class (Lida)	8
		<i>Malakhit</i> -class (Olya)	1
Amphibious	Landing Platform	<i>Dyugon</i> -class	5
		Project 11770	12
	Landing Ship Heavy	Project 775 (Ropucha I/II)	12
		Project 775M (Ropucha III)	3
		<i>Tapir</i> -class (Alligator)	4
	Landing Ship Other	<i>Akula</i> -class (Ondatra)	9
		<i>Pomornik</i> -class (Zubr)	2
Air Force			
Superiority Fighters	4.5 Generation	MiG-31B/BS Foxhound	12
		MiG-31BM Foxhound	20
		Su-33 Flanker D	18
	4 th Generation	MiG-29 Fulcrum	90
		MiG-29KR Fulcrum	19
		MiG-29KUBR Fulcrum	4
		Su-27/Su-27UB Flanker	18
Multirole Fighters	4.5 Generation	Su-30M2	14
		Su-30SM	9
		Su-34 Fullback	57
		Su-35S Flanker	36
	4 th Generation	MiG-29SMT Fulcrum	28
		MiG-29UBT Fulcrum	6
		Su-24M Fencer	41
		Su-27SM2 Flanker	47
		Su-27SM3 Flanker	14
Attack Fighters	4 th Generation	Su-25 Frogfoot	80
		Su-25SM/SM3 Frogfoot	100
		Su-25UB Frogfoot	15
		Su-25UTG Frogfoot	5
Bombers		Tu-160 Blackjack	32

		Tu-95MS/MSM Bear H Tu-22M3/MR Backfire C	120 63
Intelligence, Reconnaissance	Surveillance,	Tu-142MK/MZ Bear F/J Tu-142MR Bear J Be-12PS Mail Il-18D Il-38 May Il-38N May Su-24MR Fencer E	12 10 3 17 16 6 12
ELINT		Il-20M Coot A Il-20RT Coot A Il-22 Coot B Il-22M Coot B	15 2 5 12
Airborne Early Warning & Control		A-50 Mainstay A-50U Mainstay	15 3
Search & Rescue		An-12PS Cub	3
Tankers		Il-78 Midas Il78M Midas	5 10
Transport	Heavy	An-124 Condor An-22 Cock Il-76MD/MF Candid	9 2 100
	Medium	An-12BK Cub	65
	Light	An-24RV Coke An-26 Curl An-72 Coaler An-140 An-148 Tu-134 Crusty Tu-154M Careless L-410 L-39 Albatross Yak-130 Mitten	1 115 25 5 9 54 18 27 150 81

Western Military District

Maneuver	Combat Support	Air Formations
<i>Motorized</i> 138 th Guards Motor Rifle Brigade (Kemenka) 25 th Guards Motor Rifle Brigade (Vladimirskyy)	<i>Missiles</i> 26 th Missile Brigade (Luga) 448 th Missile Brigade (Kursk)	<i>Air Superiority</i> 159 th Fighter Regiment (Besovets) 14 th Fighter Regiment (Kursk)

Lager) 27 th Guards Motor Rifle Brigade (Vidnoe)	112 th Guards Missile Brigade (Shuya)	
<i>Mechanized</i> 2 nd Guards Motor Rifle Division (Kalininets) 9 th Motor Rifle Brigade (Nizhny Novgorod)	<i>Artillery</i> 9 th Guards Artillery Brigade (Luga) 288 th Artillery Brigade (Mulino) 79 th Guards Reactive-Artillery Brigade (Tver)	<i>Multirole Fighters</i> 98 th Joint Aviation Regiment (Monchegorsk) 7000 th Joint Aviation Regiment (Voronezh) 790 th Fighter Regiment (Tver)
<i>Armored</i> 4 th Guards Tank Division (Naro-Fominsk) 6 th Tank Brigade (Mulino)	<i>Electronic Warfare</i> 132 nd Communications Brigade (Agalatovo) 232 nd ELINT Battalion (Ostrov) 82 nd ELINT Brigade (Vyazma) 16 th EW Brigade (Plavsk)	<i>Air Defense</i> 5 th AD Brigade (Nenimyaki) 202 nd AD Brigade (Naro-Fominsk) 53 rd AD Brigade (Kursk) 49 th AD Brigade (Yelnya) 1 st AD Brigade (Severomorsk) 2 nd AD Brigade (Khvoynyy)
<i>Air Assault</i> 76 th Guards Air Assault Division (Pskov)	<i>Special Forces</i> 2 nd Spetsnaz Brigade (Promezhits) 16 th Spetsnaz Brigade (Tambov)	<i>Helicopters</i> 549 th Army Air Force Base (Pushkino) 378 th Army Air Force Base (Smolensk) 15 th Army Air Force Brigade (Ostrov)
<i>Airborne</i> 98 th Guards Airborne Division (Ivanovo) 106 th Guards Airborne Division (Tula)	<i>Engineers</i> 45 th Guards Engineering Brigade (Nikolo-Uryupino)	

Central Military District

Maneuver	Combat Support	Air Formations
<i>Air Assault</i> 31 st Air Assault Commando Brigade	<i>Missiles</i> 92 nd Missile Brigade (Totskoe)	<i>Air Defense</i> 8 th AD Brigade (Samara) 9 th AD Brigade

(Ulyanovsk)	119 th Missile Brigade (Elansky)	(Novosibirsk) 297 th AD Brigade (Alkino) 61 st AD Brigade (Yurga) 28 th AD Brigade (Chebarkul)
<i>Mechanized</i> 21 st Guards Motor Rifle Brigade (Totskoye) 35 th Guards Motor Rifle Brigade (Aleisk) 74 th Guards Motor Rifle Brigade (Yurga) 201 st Motor Rifle Division (Tajikistan) 28 th Motor Rifle Brigade (Yekaterinburg)	<i>Artillery</i> 385 th Guards Artillery Brigade (Zvezdny) 120 th Artillery Brigade (Yurga) 232 nd Reactive-Artillery Brigade (Chebarkul)	<i>Helicopters</i> 562 nd Army Air Force (Novosibirsk) 48 th Army Air Force (Kamensk Uralsky)
<i>Motorized</i> 15 th Guards Motor Rifle Brigade (Roshchinsky) 23 rd Guards Motor Rifle Brigade (Samara) 32 nd Motor Rifle Brigade (Novosibirsk)	<i>Special Forces</i> 3 rd Guards Spetsnaz Brigade (Tolyatti) 24 th Spetsnaz Brigade (Novosibirsk)	<i>Air Superiority</i> 6980 th Guards Air Regiment (Chelyabinsk)
<i>Armored</i> 7 th Guards Tank Brigade (Chebarkul)	<i>Electronic Warfare</i> 18 th EW Brigade (Nizhneudinsk) 179 th Communications Brigade (Yekaterinburg) 39 th ELINT Brigade (Orenburg)	<i>Multirole Fighters</i> 999 th Air Regiment (Kant)
	<i>Engineers</i> 12 th Guards Engineer Brigade (Alkino) 41 st Engineer-Sapper Regiment (Achinsk)	

11. Sweden

Ground Forces		
Main Battle Tanks	Leopard 2A4 (Strv-121)	9

		Leopard 2A5 (Strv 122)	120
Armored Infantry Fighting Vehicles		CV9040 (Strf 9040)	354
Armored Personnel Carriers	Tracked	Pbv 302	281
		BvS10 Mk II	150
	Wheeled	XA-180 Sisu (Patgb 180)	34
		XA-202 Sisu (Patgb 202)	20
	XA-203 Sisu (Patgb 203)	148	
	XA-360 (Patgb 360)	113	
	Protected Patrol Vehicles	RG-32M	360
Artillery	Self-Propelled	Archer (155-mm)	8
	Mortars	212M/86 (80-mm)	212
		84M/41D (120-mm)	84
Anti-Tank	MANPATS	RB-55 Carl Gustav (84-mm)	Unknown
Air Defense	Towed	RBS-97	Unknown
	MANPAD	RBS-70	Unknown
Helicopters	Transport	UH-60M Black Hawk (Hkp-16)	15
		NH90 TTH (Hkp-14)	13
		AW109 (Hkp-15A)	12
		AW109M (Hkp-15B)	8
Navy			
Submarines	SSK	Gotland-class	3
		Sodermanland-class	2
Surface Combatants	Patrol and Coastal	Visby-class	5
		Göteborg-class	2
		Stockholm-class	2
		Tapper-class	9
Mine Warfare	Mine Countermeasures	Koster-class	5
		Sparö-class	2
		Sam-class	2
		Sokaren-class	1
Amphibious	Landing Platform	Trossbat-class	8
		Combatboat 90E/H/HS	129
		Griffon 8100TD	3
Air Force			
Multirole Fighters	4 th Generation	JAS-3C/D Gripen	97
ELINT		Gulfstream IV SRA-4 (S102B)	2

Airborne Early Warning & Control		S-100B Argus	1
		S-100D Argus	2
Tankers		KC-130H Hercules (Tp-84)	1
Transport	Medium	C-130H Hercules (Tp-84)	5
	Light	Saab 340 (OS-100A/Tp-100C) Gulfstream 550 (Tp-102D)	2 1

Maneuver	Combat Support	Air Formations
<i>Light Infantry</i> Livgardet (Kungsängen)	<i>Engineers</i> Engineering Regiment (Eksjo)	<i>Air Defense</i> AD Regiment (Halmstad)
<i>Airborne</i> 31 st Airborne Battalion (Karlsborg)		<i>Multirole Fighters</i> 17 th Fighter Wing (Kallinge) 21 st Fighter Wing (Kallax)
<i>Armored</i> Skaraborgs Regiment (Skovde)		
<i>Mechanized</i> Sodra Skanska Regiment (Revingehed) Norrbottnens Regiment (Boden)		

12. United Kingdom

Ground Forces			
Main Battle Tanks		Challenger 2	227
Recce Vehicles		Jackal	197
		Jackal 2	110
		Jackal 2A	130
		Scimitar	201
Armored Infantry Fighting Vehicles		FV510 Warrior	466
		FV511 Warrior	88
Armored Personnel Carriers	Tracked	Bulldog Mk 3	880
		FV103 Spartan	275
		BvS-10 Mk 2 Viking	99

	Protected Patrol Vehicles	Foxhound Mastiff (6x6) Ridgback	398 421 168
Artillery	Self-Propelled	AS90 Braveheart (155-mm)	89
	Towed	L118 Light Gun (105-mm)	108
	Multiple Rocket Launch	M270B1 MLRS (227-mm)	35
	Mortars	L16A1 (81-mm)	360
Anti-Tank	Self-Propelled	Exactor	Unknown
	MANPATS	Javelin	Unknown
Air Defense	Self-Propelled	FV4333 Stormer	60
	Towed	Rapier FSC	14
	MANPAD	Starstreak (LML)	Unknown
Helicopters	Attack	AH-64D Apache	50
	Naval	AW159 Wildcat HMA2	28
		Lynx HMA8	10
		AW101 ASW Merlin HM2	30
		Sea King AEW7	8
Multirole	AS365N3	5	
	AW139	1	
	AW159 Wildcat	34	
	Lynx AH9A	21	
	SA341B Gazelle AH1	34	
	Bell 412EP Griffin HAR-2	4	
Transport	AW109E	2	
	AW109SP	1	
Navy			
Submarines	SSBN	<i>Vanguard</i> -class	4
	SSN	<i>Trafalgar</i> -class	4
		<i>Astute</i> -class	3
Surface Combatants	Destroyers	<i>Daring</i> -class (Type-45)	6
	Frigates	<i>Norfolk</i> -class (Type-23)	13
	Patrol and Coastal	<i>River</i> -class	4
<i>Archer</i> -class		16	
<i>Scimitar</i> -class		2	
Mine Warfare	Mine Countermeasures	<i>Hunt</i> -class	8
		<i>Sandown</i> -class	8
Amphibious	Landing Platform	<i>Albion</i> -class	2
		<i>Ocean</i> -class	1

Air Force			
Multirole Fighters	5 th Generation	F-35B Lightning II	4
	4 th Generation	Tornado GR4/GR4A Typhoon FGR4/T3	65 138
Intelligence, Reconnaissance	Surveillance,	Sentinel R1	5
		Shadow R1	6
ELINT		RC-135W Rivet Joint	2
Airborne Early Warning & Control		E-3D Sentry	6
Tankers		A330 MRTT Voyager KC2/3	14
Transport	Heavy	A400M Atlas	11
		C-17A Globemaster	8
	Medium	C-130J Hercules	10
		C-130J-30 Hercules	14
Light		BN-2A Islander	3
		Beech 200GT King Air	2
		Beech 200 King Air	5
		Bae-146 CC2/C3	4

Maneuver	Combat Support	Air Formations
<i>Mechanized</i> 1 st Armored Infantry Brigade (Tidworth) 12 th Armored Infantry Brigade (Bulford) 20 th Armored Infantry Brigade (Westfalen)	<i>Artillery</i> 1 st Artillery Brigade (Bristol)	<i>Multirole Fighters</i> No. 1 Squadron (Lossiemouth) No. 11 Squadron (Coningsby) No. 3 Squadron (Coningsby) No. 29 Squadron (Coningsby) No. 6 Squadron (Lossiemouth) No. 15 Squadron (Lossiemouth) No. 9 Squadron (Marham) No. 31 Squadron (Marham)
<i>Air Assault</i> 16 th Air Assault Brigade (Essex)	<i>Engineers</i> 8 th Engineer Brigade (Dorset)	<i>Air Defense</i> Joint AD Command (Berkshire)

	<i>Electronic Warfare</i> 1 st Signal Brigade (Bristol)	
--	--	--

13. United States

This estimates the total volume of equipment deployed in EUCOM units combined with Operation Atlantic Resolve forces left in Poland and the Baltic States. Some of the logistical equipment in Europe is omitted. The estimate does not reflect all units of the United States and these could be reinforced with additional U.S. forces either from CONUS or from other forces deployed around the world; in particular, naval assets change routinely depending on the momentary demands of the United States and would likely be reinforced if a crisis was foreseen (below is listed the general minimum allocations to U.S. Sixth Fleet).

The United States also possesses a nuclear deterrent, including some tactical nuclear weapons at Ramstein Air Base in Germany, that would likely play a significant role in the event of U.S. intervention in a conflict in the Baltic region.

Ground Forces			
Main Battle Tanks		M1A2SEPV2 Abrams	29
Armored Infantry Fighting Vehicles		M2A2/A3 Bradley	39
Armored Personnel Carriers	Tracked	M113	8
	Wheeled	M1126 Stryker Infantry Carrier M1128 Stryker Mobile Gun System	280 27
Artillery	Self-Propelled	M119A2/A3 (105-mm)	16
	Towed	M777A1/A2 (155-mm)	24
	Mortars	M252 M1064	60 4
Anti-Tank	MANPATS	Javelin	Unknown
Air Defense	Self-Propelled	MIM-104 Patriot	5
Helicopters	Attack	AH-64D Apache	12
Navy			
Submarines	SSN	<i>Los Angeles</i> -class	3+
Surface Combatants	Cruisers	<i>Ticonderoga</i> -class (Aegis)	2+
	Destroyers	<i>Arleigh Burke</i> -class	3+
Amphibious	Landing Platform	LCAC	10+

	Landing Ship Heavy	Wasp-class	3
Air Force			
Superiority Fighters	4 th Generation	F-15C Eagle	12
Multirole Fighters	4 th Generation	F-15E Strike Eagle	24
		F-16C/D Fighting Falcon	36
Airborne Early Warning & Control		E-3 Sentry	3

Maneuver	Combat Support	Air Formations
<i>Mechanized</i> 2 nd Stryker Cavalry Regiment (Vilseck, Germany)	<i>Engineer</i> 18 th Engineer Brigade (Schweinfurt, Germany)	<i>Multirole Fighters</i> 31 st Fighter Wing (Aviano, Italy) 48 th Fighter Wing (Lakenheath, UK) 480 th Fighter Squadron (Spangdahlem, Germany)
<i>Airborne</i> 173 rd Airborne BCT (Vicenza, Italy)		<i>AWAC</i> 606 th Air Control Squadron (Gelsenkirchen, Germany)
<i>Armored</i> Operation Atlantic Resolve Teams (EST, LVA, LIT, PL)		
<i>Attack Helicopters</i> 12 th Combat Aviation Brigade (Ansbach, Germany)		

The following is a breakdown of the forces available to each nation as reported in IISS' *The Military Balance, 2016*. This excludes dismounted infantry, whose manning numbers tend to be classified. In addition, a list of formations, generally at brigade or wing level, is given; maritime forces are not included in this list.

APPENDIX II

THE IMPACT OF TERRAIN UPON RUSSIAN MILITARY OPTIONS IN THE BALTIC REGION

*Phillip A. Petersen with Nicholas Myers and
Wojciech Zalewski*



The Potomac Foundation

APPENDIX II – Table of Contents

The Initial Operational-Strategic Objective.....	245
The Probable Main Operational Direction.....	246
Tactical Axes in Latgale.....	249
Initial Tactical Axis: Pskov – Rēzekne.....	249
Initial Tactical Axis: Moscow-Rēzekne.....	252
Initial Tactical Axis: Minsk – Daugavpils.....	255
Subsequent Tactical Axis: Rēzekne – Rīga Axis.....	257
The Probable Main Operational Direction.....	263
Operational-Strategic Regions of Estonia.....	273
Tallinn.....	273
Saaremaa.....	275
Other Operational Directions in the Baltic States.....	285
The Narva – Tallinn Operational Direction.....	285
The Pskov – Rīga Operational Direction.....	288
The Daugavpils – Rīga Operational Direction.....	309
The Vilnius – Kaunas Axis and the Suwałki Gap.....	329
Strategic Offensive War-Termination Operation.....	331
The Western (Vistula) Arm of Encirclement.....	333
The Eastern (Bug) Arm of Encirclement.....	350
The Iron Triangle – Holding Warsaw Hostage.....	361
A Preliminary Operational-Strategic Assessment.....	364
The Russia Invasion of Poland in 1920.....	365
Russian Air Operations.....	371

Analyses of *Zapad* operational-strategic scale military exercises run by the Russian General Staff in 1999, 2009 and 2013 suggest the vulnerability the Russians feel about the exposed operational position of their military forces in the geo-strategic space they refer to as Kaliningrad Oblast. In all three of these military exercises the Russian General Staff trained for the relief of their forces stationed in this exclave territory unilaterally incorporated into the Soviet Union after the end of the Second World War. If one accepts the establishment of a land corridor between Russia proper and Kaliningrad as being of the highest strategic value during any potential conflict in north-east Europe today, and applying General Staff planning norms to the geography of the region (including Estonia, Latvia, Lithuania and Poland), it becomes possible to identify the probable main operational axes of advance within the Western Strategic Direction of the European *TVD* (Theater of Strategic Military Action) during Russian offensive operations.

The Initial Operational-Strategic Objective

In a perfect Muscovite world, Russian security forces would seize Tallinn, Riga, and Vilnius in a single operation and “persuade” their respective parliaments to request that Moscow accept their states as constituent parts of the empire, much as it was done in 1939 when the chambers of these august bodies were filled with armed Soviet soldiers. This is also not unlike what transpired in the Crimean Parliament during Vladimir Putin’s 2014 coup in Simferopol.

Despite having executed this type of scenario during Stalin’s rule and now during the rule of Putin, Moscow understands that such an operation would not succeed a second time in the Baltic States. Furthermore, the Russian General Staff understands that with a dramatically reduced force, it would have to establish a secure land corridor to its Kaliningrad garrison before it is

destroyed by NATO.¹ If Putin's war against the European Union and NATO requires overt military aggression against the Baltic States, **a land corridor to Kaliningrad must be established and access to the Baltic Sea must be denied to Western forces.**

Once overt combat has commenced, an inability to deny access to and use of the Baltic Sea to Western forces would expose the Black Sea Fleet and Kaliningrad garrison to destruction. If the glaxis of Kaliningrad is neutralized, Russian military forces could be quickly pulled down, and the regime's destruction threatened in a way that its top figures would be scrambling to save themselves from "being brought to justice for crimes against international law and humanity, and for grand corruption."² Thus, the question arises for Russian planners as to the type of asymmetrical actions can Moscow employ to nullify Western advantages in armed combat.³

The Probable Main Operational Direction

The Latgale region of Latvia prominently figures in Russian calculations,⁴ and much preliminary effort by Russia has been dedicated to prepare the region for the "non-military asymmetric warfare to establish favorable socio-economic and political environment" called for by the General Staff's New Generation Warfare.⁵

¹ It appears that the Russians would have to complete a land bridge to Kaliningrad within ten days, as that constitutes the region's natural gas storage reserves. See Vadis Kuzmins, "Kaliningrad Oblast: Bridgehead for Aggression or Captive Island," PowerPoint Briefing, National Defence Academy of Latvia, Center for Security and Strategic Research, 2016.

² Sergei Guriev, "Russia, after Putin," *The Washington Post*, June 12, 2015, p. A15

³ General Valery Gerasimov, Chief of the General Staff of the Russian Federation, *Military-Industrial Courier*, February 27, 2013.

⁴ See *NewsBalt*, 16 April 2015. Russian trolls have already proposed a flag for this "people's republic." See Andrew Higgins, "Latvian Region Has Distinct Identity, and Allure for Russia," *The New York Times*, May 20, 2015.

⁵ Col. S.G. Chekinov and LTG S.A. Bogdanov, "On the Character of New Generation Warfare," *Voyenna mysl'*, October 2013.

Most likely, the Russian 6th Army would be supporting the “introduction of armed insurgents”⁶ in order to avoid “overt intervention to occupy territory and suppress any remaining resistance”⁷ in Latgale (See Figure 26).

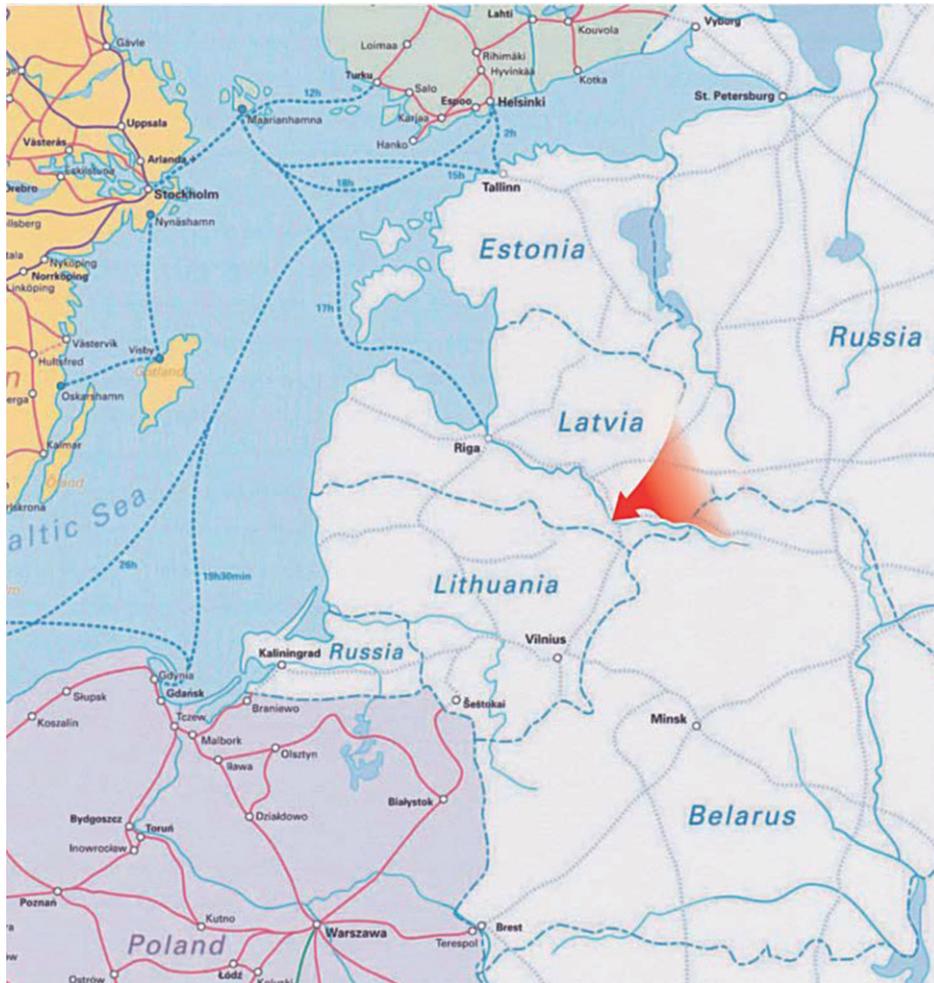


Figure 26: Russian 6th Army Support of Armed Insurgency in Latgale

⁶ *Ibid.*

⁷ *Ibid.*

However, once overt intervention has commenced, one could expect the main tactical axes into Latgale to follow the three main roads with parallel railroad lines into Latgale—one from the North and two from the East. (See Figure 27)

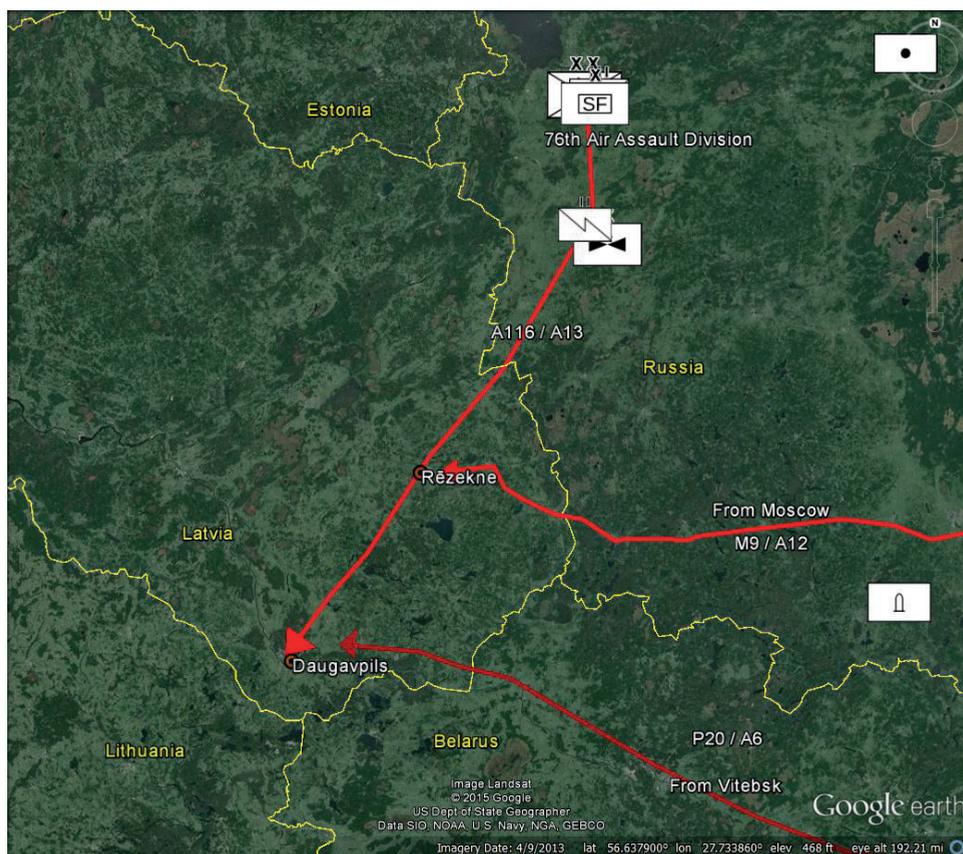


Figure 27. Each of these tactical axes of advance meets the Russian General Staff's definition for a Main Axis as all three involve a highway and a parallel rail line.

Tactical Axes in Latgale

There are three tactical axes comprising the Latgalian Operational Axis: 1) Pskov – Rēzekne Tactical Axis; 2) Moscow – Rēzekne Tactical Axis; and 3) Smolensk – Daugavpils Tactical Axis.

Initial Tactical Axis: Pskov – Rēzekne Tactical

Just south of the Latvian – Russian border the Rītupe River in front of Karsava offers an opportunity to immediately slow an advance by destroying the three road and one rail bridge over the Rītupe River. (See Figure 28) The main risk for being outflanked in the defense of Karsava is the P45 highway that runs from very near the Russian border on the left bank of the Rītupe. Regardless of this vulnerability, the terrain offers the defenders a concrete opportunity to force early delays upon the advance detachment of attacking forces just south of the Russian border. (See Figure 29)

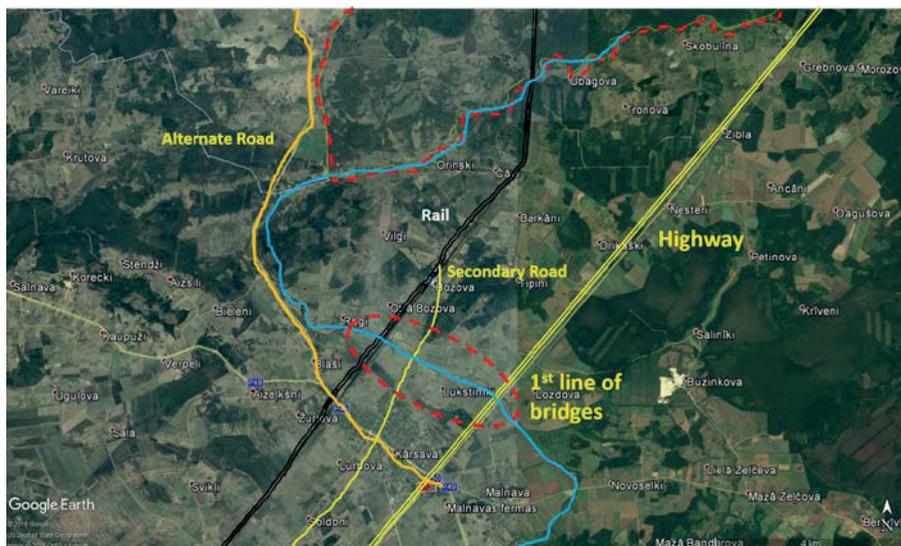


Figure 28: The easiest way to outflank the principal water-barriers in front of Kārsava are to cross into Latvian territory west of the Rītupe River, although doing so would not resolve the necessity of bridging the river for logistic purposes should the Latvians take the bridges over the Rītupe down.



Figure 29: Rītupe River at the Route 13/E262 bridge from Pskov, Russia, just east of Kārsava, in Latgale. Note that the soft banks of the river make it difficult to get into and out from the water.

Further south, near Bērzgale, the terrain offers another opportunity to force advancing forces to deploy off the A13 highway, with limited maneuver room for mechanized vehicles to press an attack. (See Figure 30) Water barriers just to the north of Rēzekne and the city itself offer major opportunity for the defender to impose significant delay on attacking forces. (See Figure 31)



Figure 30: This map illustrates the numerous water-barriers that practically encircle the city of Rēzekne and the approach to Daugavpils from the north.



Figure 31: The officers of an American SOF company of 3rd BN, 75th Ranger Regiment training with the Latvian National Guard studying the potential water-barriers that could be employed to defense Rēzekne.

Initial Tactical Axis: Moscow-Rēzekne

The main road and rail transit (See Figure 32) from the Russian border to Rēzekne must transit a natural arc of water barriers that run from the north west to south of Ludza. If the city is evacuated and the buildings used for defensive positions, Ludza could be turned into a “hard point” which could be employed to impose significant delays upon the attacking forces. The main requirement to support the defense of Ludza would be to employ small forces to intercept small units attempting to circumvent Ludza through the extensive lakes that run from the city all the way to Rāzns ezers (See Figure 30).



Figure 32: The A12 highway and the rail line from Russia to Rēzekne occupies a narrow band of terrain between a series of lakes that canalize movement from east to west. This photo was taken looking east only a few kilometers west of Luda.

If adequate counter-battery capability and terminal air defenses are sufficient to keep attacking forces from pounding the defenses into submission, the terrain will not allow the attacking forces to bring sufficient forces to bear that would require withdrawal from Ludza or Rēzekne. The two airfields (one abandoned) to the north west of Rēzekne should be considered as possible airmobile assault insertion points that might be employed by the attacker to press the defender from behind, as well as cut off resupply and withdrawal. A reserve force, to include some limited numbers of tanks, should be considered a prerequisite to facilitating withdraw from defensive lines along the A13 highway to the north of Rēzekne and from Ludza, as well as to neutralize any air mobile assault and withdrawal from Rēzekne itself should it become necessary.

The broad belt of lakes running from Dagda in the east almost to Preili in the west provide a final defensive zone some 20 kilometers to the northeast of Daugavpils that could be employed to impose additional days of delay on attacking forces. (See Figures 33 and 34) Given the widely dispersed nature of infantry battles required to secure passage through this tactical zone, communications, off-road transportation, and air defense would be essential. The definition of movement in this terrain is, for the most part, foot and heliborne. Forcing mechanized forces off the A13 highway prevents movement and exposes the stalled forces to interdiction so long as the attacker's artillery can be prevented from suppressing the defense along the highway.



Figure 33: This photograph is illustrative of the “choke points” created by the numerous water barriers between Rēzekne and Daugavpils. This one is created by the E262/A13 highway passing between two lakes through the forest and over the Rušenica

River, which itself constitutes a significant water-barrier because its banks inhibit easy entry and exit (See Figure 34).



Figure 34: The Rušenica River, essentially a swampy drainage-way between two lakes over which passage between even more challenging water-barriers must be negotiated. Since without engineering, bridging equipment can be used only at the locations at the prepared sites of demolished bridges, the crossing-sites present easily-identifiable locations for targeting fire-strikes.

Initial Tactical Axis: Minsk – Daugavpils

The tactical axis against Daugavpils from Belarus is mainly centered upon Krāslava (See Figures 35 and 36). The taking of this city is essential to success on this axis, and clearly the terrain favors the defender. There is, however, a secondary axis on this direction that would facilitate an attack upon Daugavpils, which comes along the P68 route from Brasaw to the left bank of the Daugava River opposite the city of Daugavpils. The most defensible terrain on this secondary tactical axis is near the border with Belarus, where a number of lakes and forested terrain constrict the attacker's ability to maneuver its forces.



Figure 35: The floodplain of the Daugava River is wide, indicating that at least during some periods of the year, crossing the river would be rather challenging. Note that the Soviets had emplaced permanent abutments for a pontoon bridge on either side of the Daugava (See Figure 36).



Figure 36: At a number of places, it was apparent that the Soviets had expected the interdiction of bridges and had, as a result, placed abutments for pontoon bridges (as was the case at Krāslava near the A6 bridge over the Daugava River) or concrete beds in the river to support movement in the event that bridges were made unusable in the course of conflict.

Subsequent Tactical Axis: Rēzekne-Riga Axis

What makes the axis between Rēzekne and the Latvian capital important is the parallel rail line. While the axis provides an alternative direction from which the Russians could approach Rīga, more importantly, it provides NATO a direction from which to threaten any Russian control over the critical rail junction at Rēzekne. If only for this latter reason alone, the Russians would undoubtedly attempt to secure Rēzekne by seizing the Malta River line at Vilāna. On the other hand, the utility of this axis along the E22/A12 highway as a means of pressing on Jēkabpils is threatened by some twenty-five kilometers east of Vilāna by swampy terrain running some thirty-five kilometers perpendicular to the axis (See Figures 37 and 38). Further west along the E22/A12 highway from this swampy terrain several small swampy streams (See Figure 40) provide NATO forces the opportunity to force delays on any advance on Jēkabpils.



Figure 37: The Teiči Strict Nature Reserve to the north side of the E22/A12 highway between Rēzekne and Jēkabpils constitutes a significant barrier to movement. The E22/A12 highway has to transit a ten-kilometer stretch between the Reserve the north side and forests (See Figure 39) that are bounded on their south by additional swampy terrain.



Figure 38: A photograph of the Teiči Strict Nature Reserve taken from ground-level.



Figure 39: Photograph taken looking West along E22/A12. Note that the waters of the Teiči Strict Nature Reserve come up to nearly to the road, with forested terrain on both sides of the highway.



Figure 40: Note the bridge in the background provides the only crossing point to what amounts to a river draining swampy terrain.

Furthermore, either side could cause major delays on this axis just by destroying the dam on Lubāns Lake which lies some eighteen miles north of Vilāna, and would flood the area
Furthermore, either side could cause major delay on this axis just by destroying the dam on Lubāns Lake which lies some eighteen miles north of Vilāna, and would flood the area.

Even a cursory assessment of the terrain of Latgale quickly leads to the conclusion that the terrain is easily defendable if the defender has a minimum number of tanks to conduct small-scale counter-attacks and support withdrawals, air defense, even a modest amount of counter-battery capacity, and the secure communications capability to control widely dispersed forces.

Regardless of whether Latgale can be “liberated” prior to commitment of Russian regular forces through Lavian territory into Lithuania, the Russian 6th Army would be prepared to follow an axis of advance Pytalovo – Rēzekne – Dugavpils, and then phase lines between Roskiškis and Zarasa, Kupiškis and Utena, Panevėžys and Ukmergė, and Siauliai and Kėdainiai. The axis would then likely pivot at Kėdainiai, to sweep through Raseiniai and across the A1/E85 highway to link up at Taruage with forces coming out of Kaliningrad and a major operation to cross the Nemunas River to destroy the root of the NATO line of communications into the Baltic States along the Polish border.

The geology of the theater is one in which water-dominated terrain runs south from the Gulf of Finland to Lake Peipus through Latgale and eastern Lithuania to northern Poland and west to the Baltic Sea (See Figure 41). This terrain is not “good tank country,” featuring ubiquitous water-barriers and forests, and can be easily defended by indigenous forces without heavy equipment.



Figure 41: The “boggy” terrain is reflected in Russian regional force structure, which features more helicopters and fewer tanks that would otherwise be found in Russian units. The Russian formations in this region also are predominately “tracked” as opposed to wheeled, again reflecting the poor trafficability of the terrain for off-road movement.

By entering Lithuania from Latvia, and keeping to the north-west of this low terrain, Russian armored forces could avoid having to transit some thirty kilometers of this lake-dominated terrain (See Figures 42 and 43) in Lithuania prior to reaching higher and less-forested territory more suitable to high-speed operations by tanks and other heavier military weapons systems.



Figure 42: This photograph was taken on the A6/E262 highway at the northwest outskirts of Utena looking in the direction of Daugvpils, Latvia. Utena sits in the middle of lake country that grows ever more watery and forested closer toward the Latvian, Russian, and Belarus borders.



Figure 43: The city of Zaraskai is four kilometers from the Lithuanian-Latvian border and fewer than twenty kilometers southwest of Daugavpils City and the Daugavpils River. Only the route straight west from Daugavpils City along the rail line avoids the water barriers along the Lithuanian border areas. Defending light infantry should be capable of performing well in this area of Lithuania.

The Probable Subsequent Main Operational Direction

While the most important issue for Russian operational-strategic planning in the Western Strategic Direction of the European Theater of Strategic Military operations is the role that Poland chooses to play in a Russian confrontation with NATO, the most likely objective in any conflict in this Strategic Direction would be a secure land link between Russian territory and the exclave of Kaliningrad. The most direct land link passes through Vilnius and Kaunas to Kaliningrad, it is probably the easiest access for NATO to defend given that the two cities could be turned into fortifications, and that there would be numerous water-barriers to negotiate. Furthermore, such an axis would still not be a directly connection with Russian territory, as it would transit through Belarus. These circumstances make a more northerly route, also further away from NATO's ability to interdict, is therefore more likely.

The most likely Main Operational Axis to link up with Kaliningrad, is likely to be one that transits a route from Daugavpils in Latvia to the Lithuanian cities of Rokiskis, Kupiškis, Panevėžys, Šiauliai, Tauragė, and to Sovetsk in Kaliningrad. An offensive into Lithuania from Daugavpils should be expected to coincide with the crossing of the Nemunas River at Sovetsk (See Figures 44 and 45), and movement north along E77/A12 highway.

Securing this axis would effectively divide the Baltic States into two. Except for occasionally heavy-wooded terrain (See Figure 46), the only operationally significant defensive positions for NATO forces on this axis would be at the Daugava River line at Daugavpils (See Figures 47, 48, and 49) and at Tauragė (See Figure 50). The Jūra River, itself, could be avoided by crossing its tributary, Akmena River, to the south-east of Tauragė, and allowing for the city to be assaulted from the west and the north. While capturing the city of Šiauliai is would not be mandatory to seize this axis, it would probably me required to defend it, and the city does have a number of water-barriers to the south and east.



Figure 44: Sovetsk as seen from over the Nemunas River from Lithuania (looking up river, i.e., east).



Figure 45: The rail bridge over the Nemunas River crosses to the west of Sovetsk (looking down river, i.e., west).



Figure 46: Heavily wooded terrain along Highway E77/A12 some 20 kilometers south-west of Šiauliai, Lithuania.



Figure 47: The bridge over the Daugava River at the City of Daugavpils, as seen from the left bank (south from Daugavpils).



Figure 48: The rail bridge over the Daugava River at Daugavpils (right side of bridge is city side and right bank of river).



Figure 49: About 10 kilometers northwest of Daugavpils – a third bridge over the Daugava River carries both road and rail spans. This photograph is taken from the right bank (west side of the river).



Figure 50: The Jūra River crosses the E17/A12 highway in front of Tauragė. The Jūra is not a significant barrier, but the difference in heights of the two banks (the city side is significantly higher) would slow down an attack and leave it exposed to direct fire weapons as it attempted to leave the river and enter the city.

Utena, Ukmerge, and Jonava might well all be bypassed to the northwest. As the General Staff attempted to widen the territory south and east of the rail line, it would undoubtedly attempt to use the tributaries to the Nemunas River as barriers to secure the flank of this axis. Eventually, the operation would seek to employ the Nemunas River west of Kaunas as a barrier to counterattack. At some point in the operation, the Russians would seek to seize the bridge over the Nemunas River at Jurbakas (See Figure 51), probably with airmobile troops out of Kaliningrad. The bridge at Jurbakas is not critical to crossing the Nemunas River, as the river poses no particular barrier (See Figure 52). Getting down to the Nemunas from the high plain on the northern side of the river and then back up on to the high plain on the southern side would constitute the main challenge (See Figures 53 and 54).



Figure 51: The bridge over the Nemunas River at Jurbarkas is indicative of the height of the plains on both sides of the river.



Figure 52: *The Nemunas River with a depth of 3-5 meters is, in most places, easy to enter and exit.*



Figure 53: This photograph taken from the north side of the Nemunas River illustrates the challenge of getting down to the river. This challenge would likely cause bottlenecks at access points down to the river that would provide ample targets of opportunity for NATO airforces.

Once south of the Nemunas River, Russian tank and mechanized forces would find themselves on a plateau seventy-five kilometers long north to south, and twenty to thirty kilometers wide east to west, and running all the way to Lithuania's border with Poland.

Polish ground forces coming to the assistance of Lithuania across this open terrain would be threatened with an attack out of Kaliningrad on their left flank. The operational axis east from Kaliningrad City has a parallel high-speed road and rail line to support movement of ammunition and fuel, although more roads on the plateau south of the Nemunas run north-to-south than east-to-west.



Figure 54: The terrain on both, the north (left) or the south side of the Nemunas River (right), supports maneuver warfare.

The Polish right flank would remain relatively secure by the nature of the terrain (See Figure 55), although it would be to the advantage of the Poles to have combat assault helicopters to provide flexible (mobile) anti-tank assets to reinforce forces defending southeast Lithuania.

Between the Nemunas River west of Kaunas and Marijampolė City is a forest (Kazlu Rūdos Miškai) with limited access. From the Belarus border to Marijampolė City the terrain may be notionally divided into two belts, the first along the border consisting of forested terrain with limited access (See Figure 56), and a second area largely dominated by lakes (See Figure 57) and the Nemunas River as it snakes its way across the terrain on its path from northwestern Belarus (See Figure 58). The forested terrain along the border with Belarus severely restricts

movement by armored forces, making it easily defended with light infantry. The lake country to the northwest canalizes movement, making transiting armored forces vulnerable to interdiction.



Figure 55: Forested terrain west of Kaunas and south of the Nemunas River restricts maneuver as far south as Marijampolė (photo taken looking east to west). From there water barriers protect the eastern flank of NATO forces moving north in support of Lithuania. To the east of the numerous lakes in the south, all along the Belarus-Lithuanian border in the southeast forested terrain with few roads further restricts east-to-west access north of the Polish border.



Figure 56: This photo (looking west from the east side of the Nemunas) taken from the A4/Route 133 bridge over the Nemunas just after the Merkys River had merged, illustrates the density of the forested terrain along the Lithuanian-Belarus border.



Figure 57: Numerous lakes, streams, and swamps dominate the terrain west and south from Marijampolė City all the way into Poland. Pictured here is Lake Metelys as seen from near Meteliai, some fifty kilometers southeast of Marijampolė City



Figure 58: This photo of the Nemunas River at Prienai (looking east from the city on the west bank of the river) demonstrates that the Nemunas provides as substantial barrier that could be used to shield the right shoulder of NATO line of communications (LOC) from Poland north to the Baltic States.

The Russian General Staff would, undoubtedly, think of the plateau to the south of the Nemunas River much as a beachhead in an amphibious landing. The challenge is to get enough forces up onto the plateau south of the Nemunas to hold the bluffs overlooking the river, since gaining the plateau makes maneuver of forces difficult until enough of it has been seized to provide depth against counterattack. Thus, a supporting attack from Kaliningrad into the West flank of the defending forces may prove critical, especially if it comes south of the Šešupė River and adds yet another tactical challenge to supporting NATO forces attempting to destroy unsupported Russian forces on the south side of the Nemunas.

NATO attack helicopters (i.e. *Apache*) and low-flying fixed-wing ground-attack aircraft (i.e. *A-10 Warthog*) operating from Polish airfields would pose a serious challenge for the Russian General Staff. Such missions would focus on attacking Russian forces attempting to make the difficult transit down from the plateau north of the Nemunas, and then, back up onto the plateau south

of the Nemunas, as well as exiting the battlefield over their own ground forces.

If the Russian drive south is defeated at the Nemunas, the Polish forces operating west of Marijampolė would be able to launch a counter-offensive against forces attacking east from Kaliningrad and take advantage of the same high-speed axis of advance. In this case, the objective would be to conduct a drive deep into the *oblast*.

Adding further to the nightmare for the Russian General Staff, the Nemunas River could serve to secure the right shoulder of any such attack by Polish forces toward Kaliningrad City. Any NATO units landing at the Estonian port of Kiepāja and the Lithuanian port of Klaipėda could end up not only reinforcing the defense of the two countries, but could even be directed south to Šilutė, and from there attack Kaliningrad Oblast from the north.

Operational-Strategic Regions of Estonia

While it would be understandable that the Baltic States might consider their respective capitals to be initial Strategic Objectives, so long as the Main Operational Objective remains the relief of Kaliningrad Region, the capitals are likely to be considered secondary objectives in the planning of the Russian General Staff. From the perspective of the Russian General Staff, Estonia is comprised of three disparate regions of operational-strategic significance: Tallinn, Saaremaa, and southeastern-most Estonia. The later operational region will be discussed in the context of its importance to the secondary operational axis directed toward the Latvian capital of Rīga.

Tallinn

As the capital of Estonia, Tallinn offers the possibility for decapitating armed resistance of Russian reoccupation of the country. If the 3,070 meter-long and 45-meter wide runway at Lennart Meri Tallinn Airport is taken through a sudden

airborne assault and naval infantry landed in Tallinn's harbors in the Bay of Kopli, the Government of Estonia could be compelled to withdraw from NATO and "invite" Russian peacekeepers. Complete surprise would be required for such an operation to succeed, and the risks of failure to attain surprise could be catastrophic.

A small assault force with several main battle tanks could easily spell disaster for any attempt to seize the airport, as paratroops or airmobile forces landing to secure the airport for the subsequent air-landing of its combat vehicles and heavy weapons would be unable to hold the airport long enough to get its fixed-wing heavy transport aircraft onto the ground and successfully unloaded.

An amphibious assault would be more difficult to defeat given the number of places naval infantry could land in the Tallinn area. Considering the combat assault training of Russian naval infantry, only an elite and well-armed standing force would be capable of successfully resisting a surprise amphibious assault landing.

Success from the Russian perspective, however, would not be assured by the success of the landing, as the purpose of such a high-risk operation would be to capture the Estonian political leadership. Knowing where a sufficient number of key senior officials are located in order to create a legal fiction that Estonia rejected Article Five assistance and withdrew from NATO would be essential. Just a few senior officials diverting from their usual work schedule and daily itineraries could spell failure to an otherwise successful operation. Under such circumstances, the "little green men" would need to be quickly withdrawn or reinforced in what would clearly be understood as an undeniable act of aggression.

Saaremaa

To protect the flank of Russian forces moving southwest from Russia on this main strategic direction from air attack by NATO or other Western airpower, it is likely that the Russian General Staff will plan a special operation to seize one or more of the islands in the Estonian archipelago.

The island of Saaremaa has played a central role in the military history of the Baltic region for centuries (see Figure 59).



Figure 59: Founded in in the late-14th Century by the Teutonic Order, modernized by the Danes in the mid-16th Century and the Swedes in the mid-17th Century, Kuressaare Castle lost its strategic value to Russia once Russia had constructed the fortress of Bomarsund on Åland (See Figure 60) and the Russian garrison withdrew from Kuressaare.

During the Cold War, Saaremaa defended the approaches to St. Petersburg (Leningrad), forming a central link in a chain of air defense

that covered the entire length of NATO's northern flank or the Soviet Union's Northwestern TVD. Without this location in the Estonian archipelago, today's Russian ground-based air defenses in Kaliningrad and Russia are unable to deny NATO aviation the critical role of providing protection and fire support to NATO and NATO Partner country ground forces.



Figure 60: Branklint Tower of the Bomarsund Fortification. The Åland archipelago dominates access to the Gulf of Bothnia, and came into the Russian Empire via the 1809 Treaty of Hamina (Fredrikshamn) along with Finland. In the hope of transforming Åland into “a Gibraltar of the North,” the Fortress Bomarsund was planned as the cornerstone of Russian control over much of the Baltic. When the British and French mounted a joint assault on Bomarsund in 1854, during the Crimean War, the main fort was defended by only 120 guns and only three of its 14 planned defensive towers had been completed. The joint British-French fleet and some 10,000 troops reduced the fortress. The lesson the Russians learned was that the fortification hadn't been completed in time.

While there has been much speculation on the possibility of an attempt by Russian forces to seize Denmark's Bornholm or Sweden's Gotland during a crisis for the forward location of ground-based air defenses, these are most probably "a island too far" in terms of Russian capability. Though most certainly not impossible – and the Russians do, in fact, practice seizing these island during some exercises – the indispensable island is Saaremaa.

During the Cold War, the Soviets had two surface-to-air missile (SAM) sites located on Saaremaa (See Figure 61 and Figure 62), as well as a second SAM site located on the smaller near-by island of Muhu (See Figure 63).



Figure 61: Phil Petersen in front of one of the bunkers constructed by the Soviets for the crew and SAM TELS at Karuujärve in northwest Saaremaa.



Figure 62: A command bunker for the former SAM site located at Oriklõla, on Saaremaa Island.



Figure 63: Surface-to-Air Missile (SAM) complex near the town of Piiri, on the island of Muhu. Note that the SAM TEL bunker was equipped with a pillbox, anticipating an attack by ground forces.

The larger Saaremaa, measuring 2,673 square kilometers (1,032 square miles) makes for the ideal target in that it is too large for the sparsely populated Estonia to defend. The island, itself only has a population of slightly over 30,000 with approximately half of this number residing in the city of Kuressaare (See Figure 64) on the southern side of the island. While the largest airfield on the island (See Figures 65 and 66) is only three kilometers from the city and with two asphalt runways – one at 2,000 meters (6,562 feet) and a second at 799 meters (2,621 feet). The port facilities and the airport near the shore make for a tempting amphibious assault landing objective. Furthermore, the former SAM site at Oriküla is no more than a 45-minute drive from the airport and city (See Figure 67). It should be noted that the ancient fortification at Kuressaare (See Figure 68) would provide a formidable position from which to defend the city.

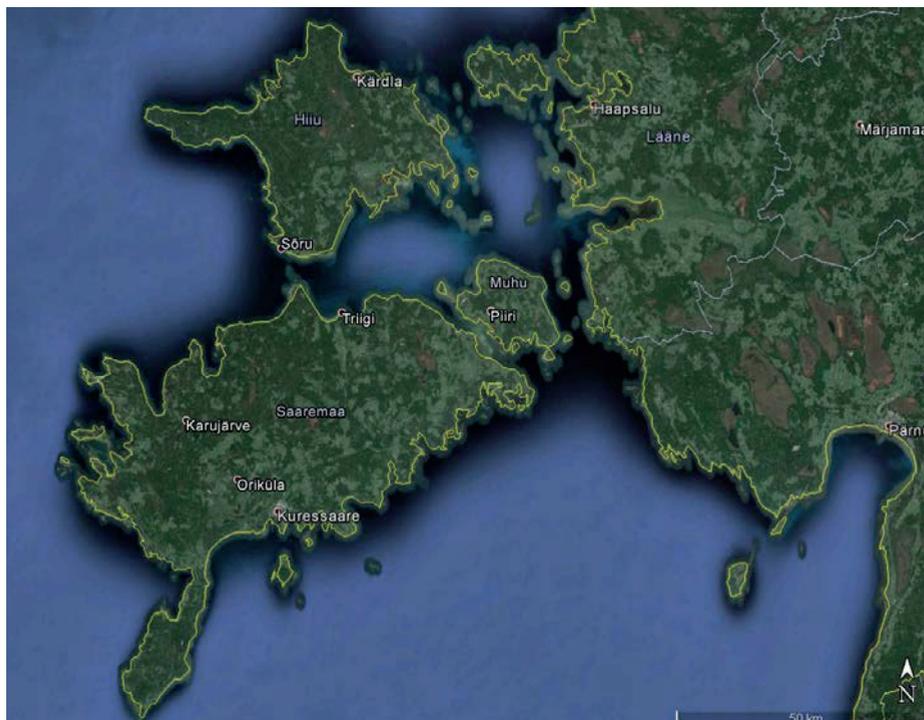


Figure 64: No fewer than three of the islands in the Estonian Archipelago are known to have been militarized during the Soviet occupation with Surface-to-Air Missiles (SAMs) and anti-ship missiles.

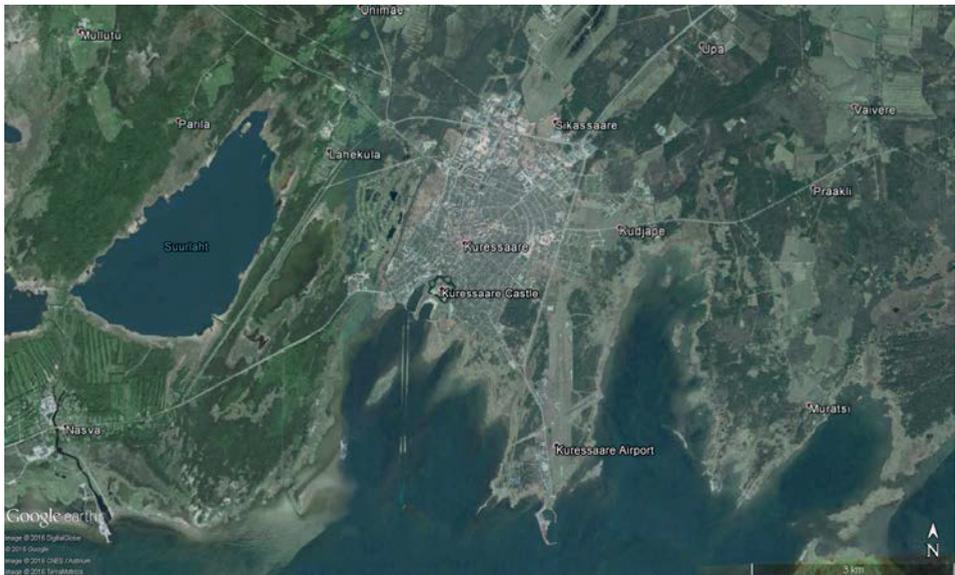


Figure 65: The city of Kuressaare with its “star” fortress and airport.



Figure 66: The airfield at Kuressaare was initially constructed during the first half of the 1930s. The airport was officially opened in March 1955, yet didn't get electricity until 1958. The current terminal building was built in 1962, and modernized in 2007, handling approximately 20,000 passengers per year.



Figure 67: The SAM Site at Oriküla, Sarramaa Island, Estonia had bunkers for missile launchers and crew in case of a surprise attack. The deployment circles are still evident within site of the top of the command bunker.



Figure 68: Kuessaare Castle sits between the city itself and the sea, with low and thick walls and several towers to provide good observation of approach from the south.

The Trigi ferry port (See Figure 69) on the northern side of the island near Leisi also offers a point at which to land SAM batteries that could be moved into the former missile site at Karujärve (See Figure 70) within two hours. Furthermore, given the causeway connecting Saaremaa with Muhu (See Figure 71), an occupying force could easily relocate a SAM battery back into the old site located at Piiri (See Figure 72) to further disperse assets for protection. By destroying the ferry port facility at Kuivastu (See Figure 73), the Russians could isolate themselves from Estonian counterattack. Although the Russian forces on the islands would be isolated, their mission of shielding the forces attacking into the Baltic States could prove critical to success in their reoccupation of the Baltic States.



Figure 69: The ferry from Trigi on the northern shore of Saaremaa runs to Sõru, on the southern tip of Hiiumaa. While the structures do not in any way compare to those located on the southern shore near Kuressaare, they still provide a ready-made facility for offloading large weapons systems.



Figure 70: The former command bunker at Karujärve is still in use by those wanting to get out of the rain and party.



Figure 71: While maps tend to depict Saaremaa being connected by Muhu by a bridge, it is actually a causeway that has been constructed through marshland between the two islands. Therefore, this land transportation link would be far more difficult to cut than it would be to take down a bridge. Another implication is that it is impossible to travel via water directly from the Gulf of Rīga and the Väinameri.



Figure 72: A “pill box” defensive position at the SAM site near Piiri indicates that the Soviets feared the possibility of a ground assault on the complex.

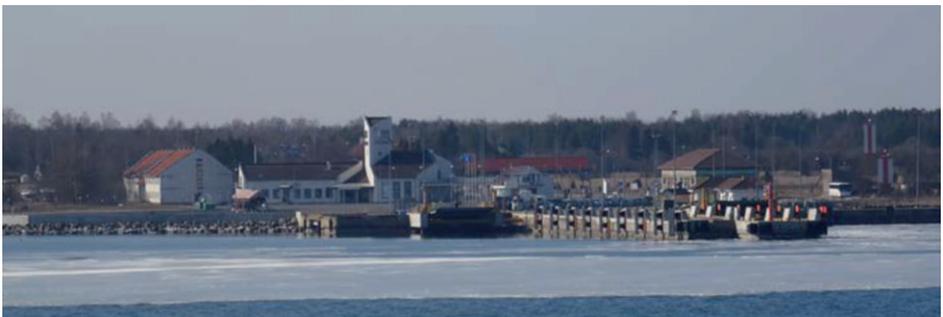


Figure 73: The ferry facility at Kuivastu, Muhu.

Other Operational Directions in the Baltic States

Russian strong predisposition toward selecting parallel main road and rail routes to opposing national capitals would suggest two additional operational axes directed from Russian territory to Tallinn and Rīga.

The Narva – Tallinn “Coastal” Operational Direction

The Narva – Tallinn Operational Direction is one with which Moscow is unpleasantly familiar. During the Second World War along this coastal axis from 26 July to 10 August 1944 the Soviets fought the Battle of the Blue Mountains at the Tannenberg Line as a German defense in depth response to the Soviet’s attack in depth. The Tannenberg Line was a subsequent defensive line behind the Panther Position (based on the Narva River and Lake Peipus), and was only surrendered after the Soviets turned their focus from the coastal axis to one directed from south of Lake Peipus towards Tartu. The focus on southeastern Estonia led the Germans to withdraw from the Blue Mountains (See Figure 74A) as part of their general approach of strategic defense and tactical offense directed at attriting Soviet forces while trading space for time. This strategy was so successful at the Tannerberg Line that a force of 24 volunteer infantry battalions from East Prussia, Denmark, Flanders, the Netherlands, Norway, and Wallonia numbering 22,250 men held off 135,830 Soviet troops. As the Soviet forces were constantly reinforced, the casualties mounted to 170,000 dead and wounded, and the loss of more than 150 tanks.¹

¹ For an excellent review of the coastal axis during the Second World War, see Major Andrew Michael Del Gaudio, United States Marine Corps, *Operational Art and the Narva Front 1944, Sinimäed and Campaign Planning*, a thesis submitted in accordance with the requirements of the University of Liverpool for the degree of Doctor in Philosophy, August 31, 2012. The authors are grateful to Dr. Kaarei Piirimäe for calling our attention to this outstanding work.

Getting its forces across the border is the first challenge for a Russian attack on the Narva-Tallinn axis (See Figure 74B). Considering the swampy terrain between Narva and Lake Peipus, the Russians might attempt to “swim” the river north of the city itself. There are places where it is possible to drive into the river on the Russian side and drive out of the river on the Estonian side (See Figure 75) with amphibious vehicles. Given Soviet-era plans to “swim” to Denmark at low tide, it should not be dismissed outright that contemporary Russian planning might include an attempt to enter Lake Peipus near Skamja and come out of the lake at any or all of the eight beaches between Russia and the Estonian city of Alajõe.



Figure 74A: The hills west of Narva are referred to as the "blue mountains" much as the Blue Ridge Mountains of Virginia are referred to because of the "blue" appearance when viewed from a distance. These hills in the northwestern Estonia dominate the east-west axis between the Gulf of Finland and the swamps to the south.

Several hard-surface roads and a spur rail line could be employed to speed forces north to Johvi (See Figure 76). Combined with the seizure of one or more of the roll-on/roll-off ports to the north of Johvi, the Russians could attempt to trap Estonian forces defending against a frontal attack at Narva.

The terrain along the coastal axes in Estonia is not conducive to even tactical amphibious assault landings (See Figure 77), so tactical

envelopment on this access would require a series of port facilities to keep the defenders fighting in multiple directions. Moscow is also well-versed in the challenges of conducting an amphibious landing on this axis, since they attempted on in February 1944 in the area of Meküla. Only three soldiers in the landing actually survived to link up with friendly forces.²

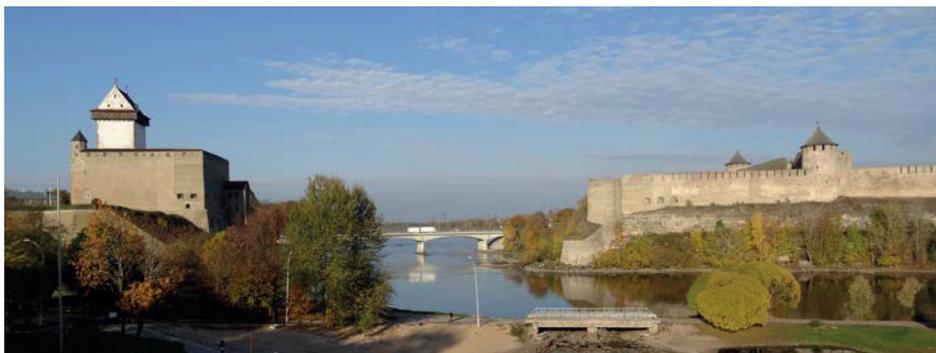


Figure 74B: The bridge between Narva with its Hermann Castle (on the left) and Ivangorod Castle (on the right).



Figure 75: As can be seen in this photograph of the mouth of the Narva River, low but solid terrain along the banks of the river allows for a reasonably easy access in and out.

² See, Del Gaudio, *Operational Art and the Narva Front 1944, Sinimäed and Campaign Planning*, pp.211-217.



Figure 76: Highways from the north coast of Lake Peipus, along with a spur rail line from south of Mäetaguse, would speed Russian forces moving on Jõhvi to cut off the retreat of Estonian defenders from Narva.



Figure 77: This photograph looking east from near Aseri, illustrates that the Estonian coast on the Gulf of Finland does not facilitate sea landings and movement ashore.

The Pskov – Rīga Operational Direction

Examination of the terrain and infrastructure of Latvia allows for easy identification of the probable main Operational Direction against Rīga within parameters of Russian General Staff planning for the reoccupation of the three Baltic States. From staging areas near the

Estonian border where the rail line from Pskov crosses the border on its way to Võru, and where the E77 highway crosses the same border, Russian troops would be directed to seize the rail line as far as Valga (Estonia)/Valka (Latvia), as well as seize control of the E77/Route 7 highway across the southeastern tip of Estonia. (See Figure 78)

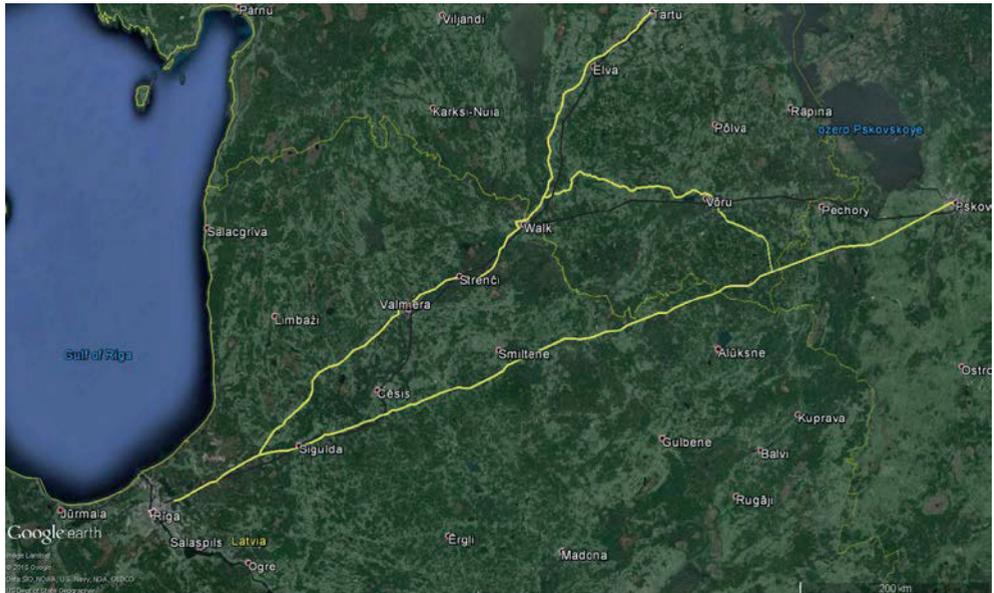


Figure 78: The Pskov – Rīga Operational Direction is comprised of two tactical axes with a railline alternating between them.

Transit through the southeastern corner of Estonia is complicated by the hilly terrain and the extensive water barriers created by streams, lakes, and swamps. Immediately after crossing the border at Petseri (Petšorõ), the road west toward Võru and the rail lines to Võru and Tartu all merge close enough for a single large demolition to cause significant delays in movement (See Figure 79). Further south along the Estonian-Russian border on E77, the town of Misso sits halfway between the Russian border and the Latvian border smack in the middle of a line of water barriers nearly ten kilometers long, running north to south and perpendicular to the E77 highway (See Figure 80). This potential defensive line has a natural picket line along the Pedejä River one to two kilometers in front the defensive line, and two withdrawal routes across

the Kuura River (See Figure 81) that can be employed to contain pursuit. Even attempting to outflank the defenders to the north of this set of water barriers funnels the attacker between two more lakes. A final “fall-back” position forcing the attacking forces between yet two more lakes presents itself before the Russians could enter into Estonia on the Route E77 axis to Rīga.



Figure 79: Approximately five kilometers west of the Estonian-Russian border at Petseri (Petšorõ), the rail lines both north to Tartu and the rail line and road to the north of the Puisa River merge to present an attractive target for destruction.

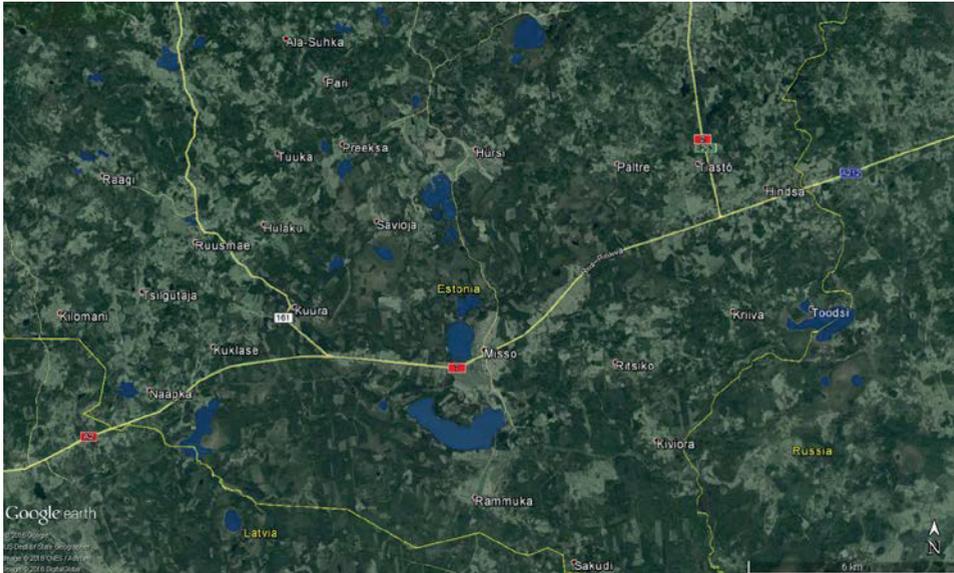


Figure 80. The seizure of southeast Estonia is critical to secure the operational axes Pskov – Rīga, as this terrain would make it a potentially difficult task to accomplish against well-equipped and well-trained defenders.



Figure 81: The Kuura River is more of a channel through a swamp that is impossible to cross without engineering if two roads are destroyed.

The rail line to Võru runs to the south of the city and Vagula Lake, which makes seizing the city an advantage to protecting the line from counterattack. This route south of Vagula Lake is through challenging terrain that could be difficult to defend (i.e., keep open and working) from special operations forces (See Figure 82).



Figure 82: The terrain in southeast Estonia, although sometimes hilly, seems always to be wet. Get off engineered surface, and one always seems to be in a swamp.

Numerous water barriers such as that in front (on the east side) of Antsla (See Figure 83) could be used to both delay the attacker and make difficult the movement of logistics. The Russian objective would be to get to and secure the railyard at Valga (See Figure 84), and seizing Valka would be a means of securing it against attack from Latvia. Moving north along highway E264/Route 3 to seize the bridge over the Väike Emajogi (See Figure 85) would provide some security against a major attack from the direction of Tartu.



Figure 83 The city of Antsla sits both astride and at the center of the road and rail axes from Võru and Valga. With water barriers dominating the approaches to the city from every direction, whomever controls it will determine the fate of the rail junction at Valga.

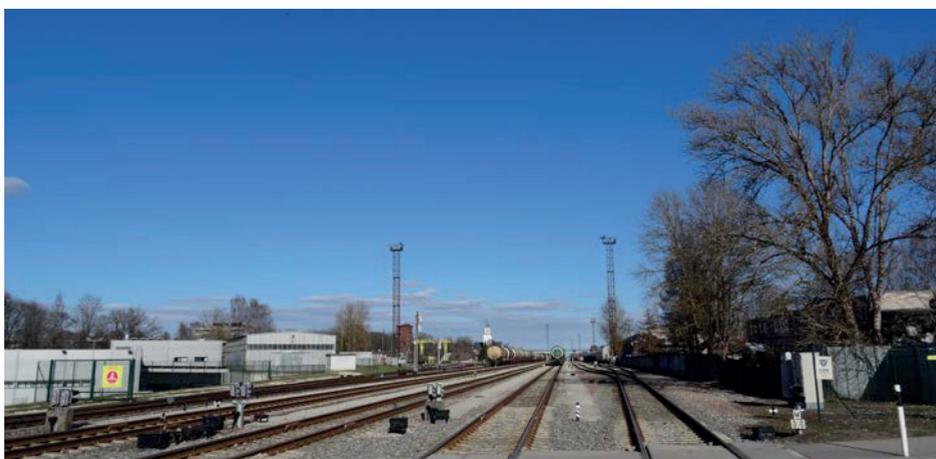


Figure 84: The rail junction at Valga would serve as a major logistics supply hub for the Pskov – Rīga Operational Direction.



Figure 85: The E264/Route 3 bridge (as seen from west side – north bank to the left) over the Vaike Emajogi. The river and its banks at this point would pose a significant barrier.

Advancing south from Valga/Valka, the Russians would undoubtedly move on three axes: 1) the E264/A3 highway; 2) the rail line toward Strenči; and 3) south on the Route P24 (See Figure 86). The main axis for this advance would be along the E264/A3 highway and the rail line, which actually cross each other near Saule before crossing back over each other near Strenči, Latvia. The purpose of the advance south on P24 would be to deny Latvian forces the opportunity of counterattacking into the rear of the Russian forces on the main axis (See Figure 87).

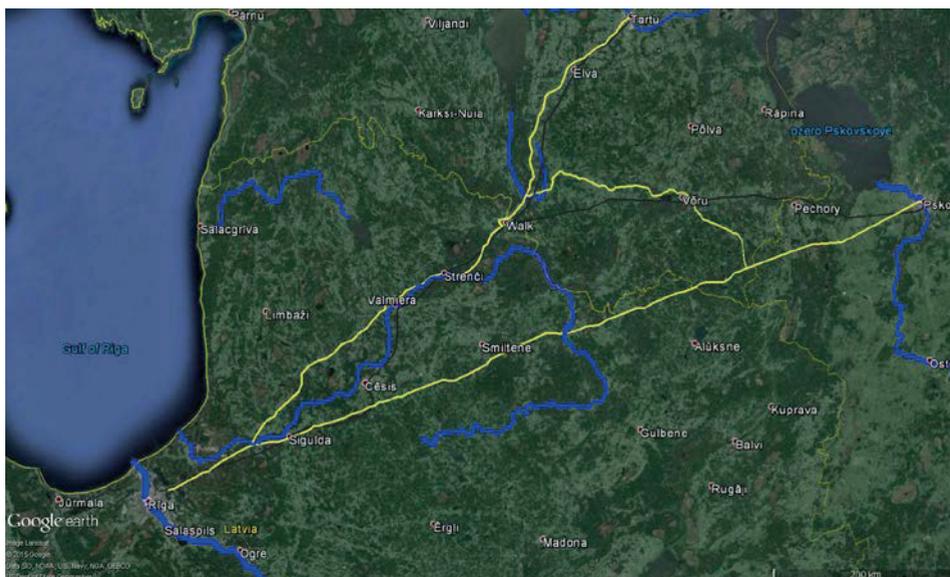


Figure 86: The Pskov – Rīga Operational Direction is dominated by the Gauja River, referred to as a “deceitful” river because it tends to change its bed, depth, and speed rapidly – characterized as a “non-homogeneous watercourse.”



Figure 87: Route P24 over the Gauja River as seen from the south side of the road and northwestern side of the river.

On the secondary axis within the Pskov – Rīga Operational Direction, along the E77/A2 highway, the Russian General Staff would likely attempt to employ airmobile forces. This would be done to preemptively seize or attack any force holding the defensible terrain formed by the twisting and turning of river lines near Vireši by landing forces in the open agricultural terrain on either side of the E77/A2 bridge over the Gauja River approximately six miles west of Vireši (See Figures 88 and 89) and some 48 kilometers south of the Estonia border.

Should they lose the defensive stronghold that can be constructed in the twisting and turning river terrain west of Vireši, the Latvian National Guard can use the E77/A22 bridge over the Vecpalsa River approximately 5 kilometers further west to at least slow the Russian advance (See Figure 80) to cover the Latvian withdrawal.

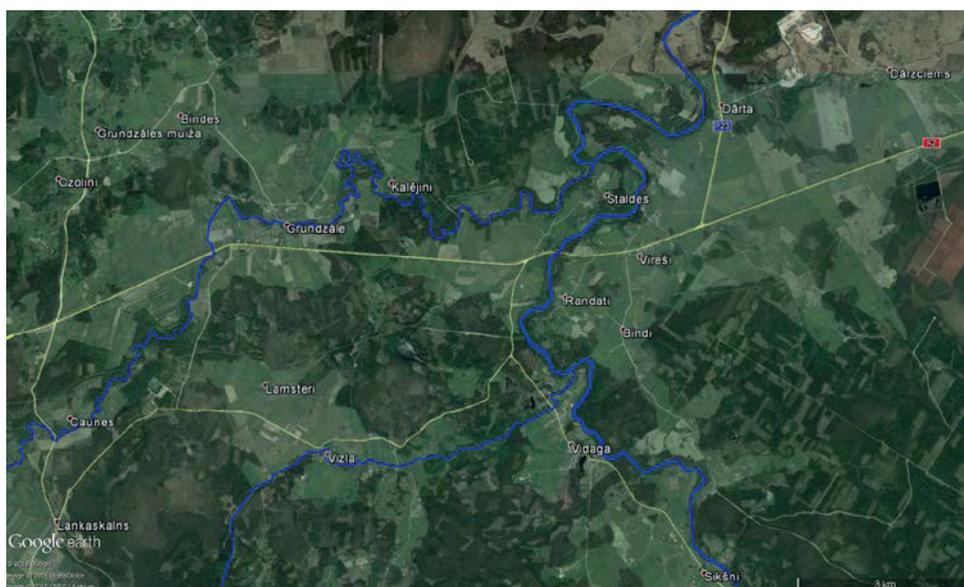


Figure 88: The confluence of the Vizla and Vecpalsa streams with the Gauja River provides an opportunity to construct a “hard point” on top of the high-speed axis within the Pskov – Rīga Operational Direction



Figure 89: Lower left, looking north, downriver; upper left, looking north; upper right and lower right, looking upriver.



Figure 90: While the Vecpalsa River cannot be considered a significant barrier, its banks offer specific points of entry and exit. As a result, the Vecpalsa could provide a targeting opportunity when individual vehicles are compelled to stop or slow down at designated crossing points.

If the Russians can get to the intersection of E77/A2 and Route P27 about 6 kilometers southeast of Smiltene (See Figure 91), their forces

may attempt to seize the city both to protect the right (north) flank of this secondary axis and, if possible, gain the possibility to support movement along the E264/A3 Axis by outflanking defending Latvian National Guard forces. Such combat actions could move northward from the E77/A2 Axis on three main roads, plus a number of secondary roads: 1) Route P24 in an attempt to trap Latvian National Guard forces defending the bridge over the Gauja River (See Figure 92); 2) Route P25 in support of an assault against Strenči (although this route would require crossing the Gauja River at Strenči (See Figure 93) – no easy task (See Figures 94, 95, and 96) – the important contribution would be to assist in the securing of the rail line to Rīga where it crosses the Gauja River (See Figures 97 and 98) to move south to parallel the E77/A2 highway; and 3) along Route P18 to seize that part of the city of Valmiera on the southeast side (left bank) of the Gauja River (See Figure 99) – which is critical because the rail line passes through this part of the city. The Route P18 highway bridge, itself, passes over the Gauja River to the south of the city (See Figures 100 and 101).



Figure 91: Highway E77/A2 over Route P27, looking northwest toward Smitene, some six kilometers from the intersection.



Figure 92: Only two insignificant tributaries cross the terrain north from Smiltene for approximately 23 kilometers along Route P24 toward the forested terrain along the Gauja River cross. For the most part, it is an open agricultural land.



Figure 93: The Route-P25 bridge over the Gauja River at Strenči as seen from left bank.



Figure 94: The approaches to Strenči from the southwest side of the Gauja River are in some places simply impossible for vehicles off-road.



Figure 95: Looking upriver on the Strenči-side of the river, the banks of the Gauja River in most places make getting into and out of the river difficult.



Figure 96: Looking downstream on the opposite side of the river from Strenči, the banks of the river alternate between marshy and steep-banked posing a challenge to a river-crossing operation if under fire.



Figure 97: The rail line to Strenči— as seen from the left bank of Gauka—is constructed on what amounts to a causeway through

forested swampy terrain. Bridge in background can be seen in Figure 98.



Figure 98: This photograph of the rail line over the Gauja River as seen from the left bank.



Figure 99: The Valmiera City Bridge over the Gaija River. Note the significant heights of the two embankments of the river and the steepness of the incline on both sides.



Figure 100: View of the Route-P18 bridge over the Gauja River from upriver showing the height of the two embankments.



Figure 101: This photograph – looking downstream – taken from the Route-P18 bridge over the Gauja River illustrates the challenge of getting into the water on the left bank and out of the water on the right bank. The Gauja River makes a transition similar to the rail line, which shifts from paralleling the E264/A3 highway to paralleling to E77/A2 highway. This transition makes the town of Cēsis, through which the rail line passes, a key defensive position.

Approximately 6 kilometers north of Cēsis, the rail line crosses over the Rauna River on a very high bridge (See Figure 102) that will probably be a major objective of a tactical airmobile assault by the Russians to preclude its destruction.



Figure 102: *The Valka-Rīga Rail line over the Rauna River is, even in peacetime, considered a “sensitive” object – with a permanent watchman with dogs to “shoo” trespassers away from approaching the bridge. See enlargement below.*



There are a number of small routes by which Russian forces moving southwest along the E77/A2 highway can advance northwest against Cēsis and the surrounding area to the west of the Gauja River (See Figure 103). For the most part, between the intersection of the E77/A2 highway and Route P27 and the town of Sigulda (through which the rail line passes), there are no operationally significant natural barriers available to the Latvian National Guard for the purposes of imposing delays upon the advancing Russian forces. Once Sigulda is secured, the E77/A2 becomes a high-speed four-lane highway with no natural barriers until the highway and rail line have to cross the operationally-challenging water barriers to the west of Rīga itself (See Figure 104). At this point the city of Rīga, itself, would be under siege.



Figure 103: The Route-P14 bridge over the Gauja River from Cesis to the E264/A3 highway. The Banks of the Gauja River at Cesis (sitting along the left bank of the river on a hill to the right in this photograph looking upriver) are not as daunting as they are in many other locations.

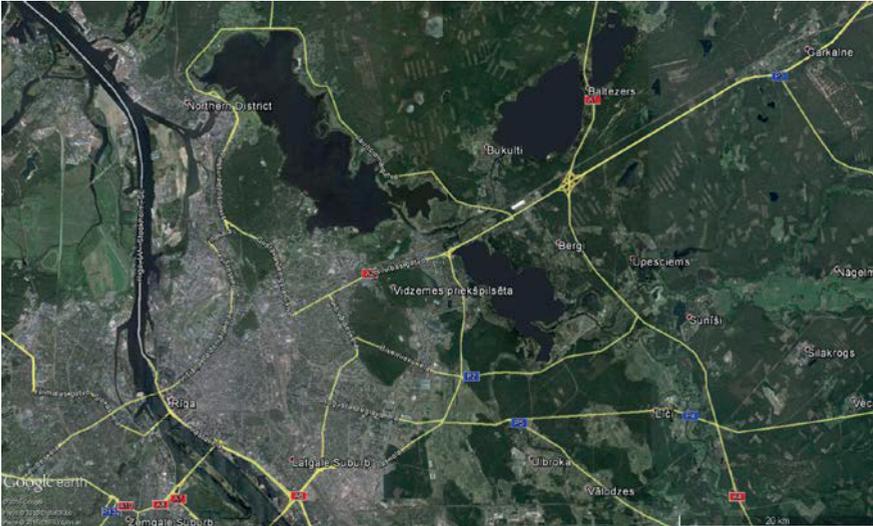


Figure 104: On the Pskov-Rīga Operational Direction water barriers dominate the final approach to entering the city itself.

After the main axis within the Pskov-Rīga Operational Direction passes from the E264/A3 highway to the E77/A2 highway at Strenči, the E264/A3 highway crosses a number of water barriers that could be turned into significant tactical bottlenecks exposing Russian troop columns to air attack (See Figure 105). The final linkup of the E264/A3 highway with the now main access along the E77/A2 highway and rail line west of Sigulda would require seizure of yet another bridge over the Gauja River (See Figure 106).



Figure 105: Highway 264/A3 Passes over several tactical Barriers as it moves south west from Stenči Rīga. The photograph to the left is the swampy terrain long the Līčupe near Plācis; the upper left is the bridge over the Krâčupe; above is the highway as it passes over the Mellupe. All of these streams constitute natural barriers that can be employed to delay advancing forces and require them to expend fuel.



Figure 106: E264/A3 bridge over Guaja River joining that highway with the E77/A2 (as seen from the left bank).

The Daugavpils – Rīga Operational Direction

In a scenario contingent where Latgale has been secured by so-called pro-Russian forces, Russian forces can attempt to flank the defenders of Rīga by advancing down the Daugavpils River on both the right (north) and left (south) bank.

Although the rail line that parallels the Daugavpils River runs along the north side of the river, a spur line crosses the river downstream (northwest) of Jēkabpils (See Figure 107), running to Jelgava, where yet another line runs north to Rīga.

Even before Jēkabpils, the axis can be blocked at Līvāpi along the Dubna River. The city of Līvāpi has three bridges: 1) the E22/A6 highway bridge (See Figure 108); a rail bridge (See Figure 109) and a pedestrian bridge (See Figure 110). The defenders of Līvāpi, however, must remain sensitive to the possibility of being outflanked by Russian forces moving along the Rēzekne-Jēkabpils axis. The approach to Līvāpi from the west also provides some opportunity to use the Dubna (See Figure 111) and its tributary Oša (See Figures 112 and 113) to delay an advance by ground forces.

After Līvāpi, Jēkabpils anchors the defense on the Operational Axis along the Daugavpils River toward Rīga (See Figures 114 and 115). To the north-west of Jēkabpils, the terrain between the Aiviekste River (See Figures 116 and 117) and the P37 Highway connecting Plavinas, Madona, and Gulbenes form a natural barrier that would funnel Russian forces over a limited number of roads (See Figure 118). Furthermore, approximately twenty to thirty kilometers further to the west, a second line of natural defensive positions could be established from Plavinas to Ērgļu (Figure 119) to Vecpiebalga to Jaunpiebalga to the P27 highway connecting Gulbene with Smiltene.

From Ērgļu to north of Vecpiebalga two lines of lakes canalize east-west transit (See Figure 122), and even the main north-south Route P33 connecting the two cities offers a number of opportunities to create obstacles by taking down bridges over streams (See Figures 123, 124, and 125). Even north of Vecpiebalga, as Route P33 makes its way to

Jaunpiebalga features evident of the difficulty of off-road trafficability are abundant (See Figure 126). At Jaunpiebalga, one encounters the Gauja River (See Figures 127 and 128) that forms a major barrier throughout the north of Latvia (See Figures 129, 130, and 131).

Should this second defensive line from Latgale be breached, Latvian forces defending on the Main Pskov-Rīga Operational Axis would be outflanked and the roads to Rīga from Latgale would need to be destroyed to slow the Russian rate of advance on Rīga itself.



Figure 107: Rail spur bridge over A22/E6 from Jēkabpils to Jelgava before crossing Daugava River.



Figure 108: The A6 Highway Bridge over the Dubna River at Līvāpi, looking up river from the Daugavpils River.



Figure 109: The railbridge over the Dubna River at Līvāni, as seen from the E22/A6 Highway Bridge and looking upriver from the Daugavpils River.



Figure 110: A pedestrian bridge over the Dubna River at Līvāni looking downriver toward the Daugavpils River. This photograph gives an indication of the terrain which, at a minimum, would require tracked vehicles to cross in the absence of bridging.



Figure 111: Just west of Rožupe, the E22/A12 highway from Preili to Līvāpi crosses over the Dubna River, providing an opportunity to force an opponent to pause and look for crossing points suited to particular types of vehicles. This would offer the defense a window to bring fires upon halted forces.



Figure 112: Bridge over Oša looking west; the stream itself is not intimidating.



Figure 113: While the banks of the Oša might present an obstacle to some wheeled vehicles, the stream should pose no challenge to tracked vehicles.

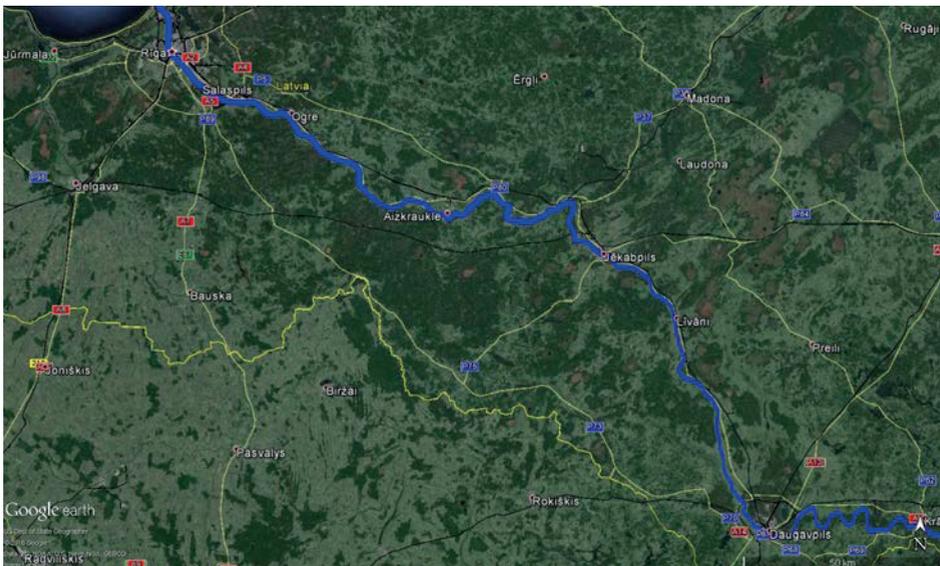


Figure 114: Daugavpils – Rīga Operational Direction.



Figure 115: The E22/A6 Highway Bridge over the Daugava River at Jēkabpils. Photograph taken from the right (north) bank of the river, looking south-east toward Daugavpils City.



Figure 116: The E22/A6 Highway over the Aiviekste River as seen from the right bank of the river. The Aiviekste runs into the Daugava River east of Plavinas and can serve as a defensive barrier in front of the city.



Figure 117: This photograph of the rail bridge over the Aiviekste River (looking upriver and taken from the E22/A6 bridge over the same river) provides a good idea of the barrier that the river could constitute if adequate preparations were put in place.

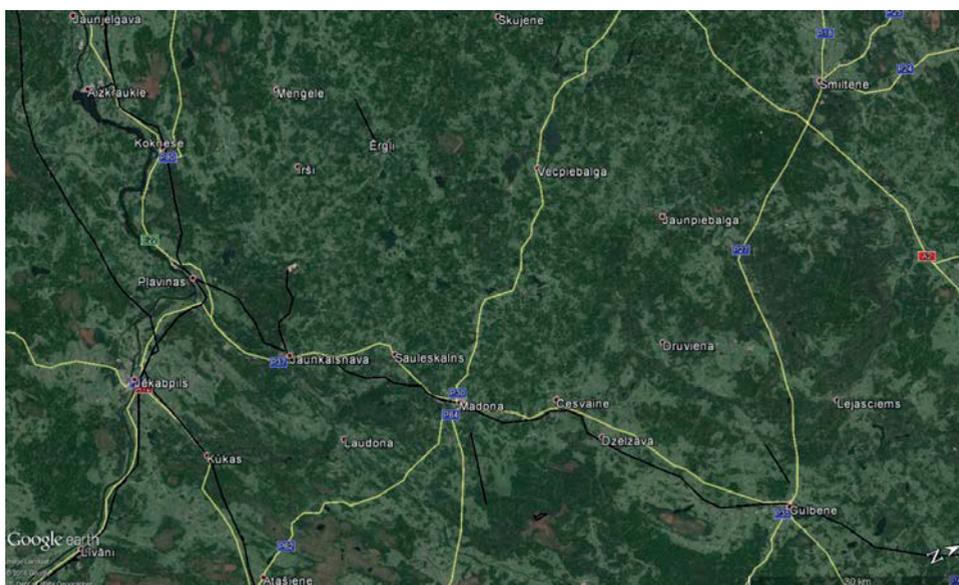


Figure 118: Possible tactical axes of advance, looking westward from Latgale.



Figure 119: The bridge over the Ogre River at Ērgli is a major chokepoint to advancing west from Latgale toward Rīga. Without engineering support, the steep banks make getting down to the river and back up on the other side difficult for all types of vehicles. West of Ērgli on Route P4, there are two additional stream crossings that could be employed to force delays in a Russian advance toward Rīga from Latgale (See Figures 120 and 121).



Figure 120: Fewer than seven miles west of Ērgli on Route P4 the marshy terrain along the Vimbupe offers an opportunity to strike attacking forces as they slow down to cross the stream.



Figure 121: Approximately sixteen kilometers west of Ērgli, the Līčupe would provide a much greater barrier if the Route P4 bridge over the stream is destroyed.

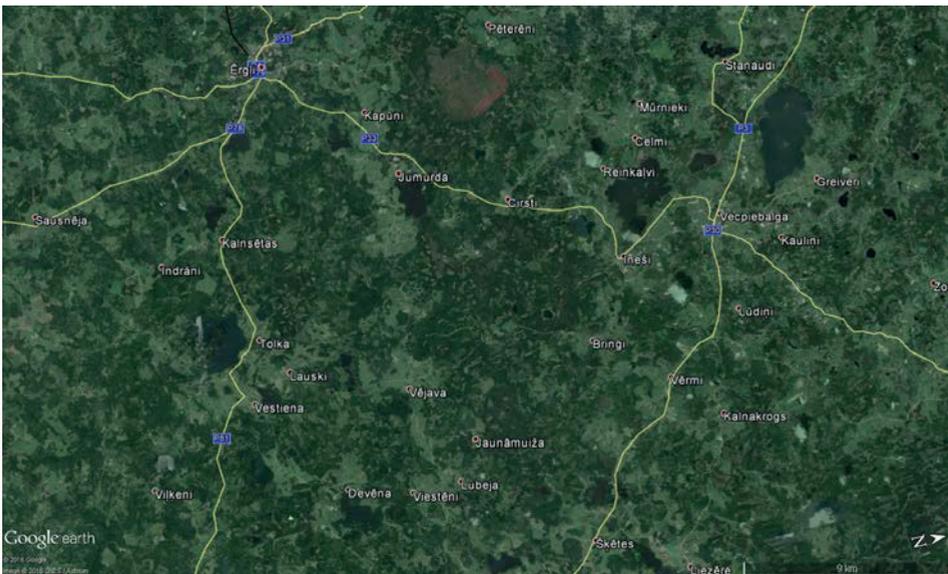


Figure 122: Looking north-west, lakes canalize east-west traffic between Ērgli and Vecpiebalga.



Figure 123: About seven kilometers north of Ērgli, Route P33 crosses the small stream Valola in a nasty bit of terrain involving boggy banks and steep slope down to and up from the stream.



Figure 124: Route 33 crosses the Sārtupīte about ten kilometers north of Ērgli. This stream has the “channel through a swamp” appearance that even tracked vehicles would be wise to avoid.



Figure 125: The P33 bridge doesn't look like it would carry too much weight over the Orge River near Cirsti. The banks of the river are soft and marshy, making fording by any vehicles difficult.



Figure 126: The terrain drained by the stream Tulija about five kilometers north-east of Vecpiebalga.



Figure 127: The Route P29 bridge over the Gauja River at Jaunpiebalga is one of two bridges in the city by which to cross the Gauja and move in the direction of the E77/A2 axis.



Figure 128: The old city bridge over the Gauja River at Jaunppiebalga is not capable of taking a significant amount of heavy traffic. The banks of the Gauja pose significant challenges to ease of entry and exit from the river itself.



Figure 129: The bridge at Gaujarēveli is one of three over the Gauja River (as seen from the left north bank) between Junpiebalga and the P27 Highway.



Figure 130: The Gauja River near Rēvel.



Figure 131: A view of the Gauja River taken from the P27 bridge which indicates the challenge posed by the river and its banks.

Between the P27 bridge over the Gauja River and the E77/A2 axis to Rīga, the P27 Route crosses three other streams that offer varying degrees of opportunity for delaying a force attempting to advance west (or in this case, northwest) in support of the Pskov-Rīga Operational Direction (See Figures 132, 133 and 134)



Figure 132: The Palsa, although not a major water barrier, probably would require tactical bridging support for most vehicles to cross.



Figure 133: The Šepka is more of an inconvenience than a barrier, though it would slow the advance of opposing forces.



Figure 134: The Rauza is yet another of those “inconveniences” that could be used to slow the advance of an opposing force, make them deploy engineering support of most vehicles and, thereby, offer artillery and airpower lucrative targets if caught in the middle of movement.

To the south, along the Daugavpils River, the construction of Highway P80 near Koknese (See Figure 135) has created a high-speed axis that eliminates obvious opportunities to slow the rate of advance of Russian forces closing upon Rīga from the east. Additionally, there are three dams on the Daugavpils River (See Figures 139, 140, 141, and 142) that could be used to effect catastrophes. Should the Russians decide that Latvian forces are putting up too much resistance, they could destroy these dams and flood Rīga in an attempt to bring the population into submission. The roads over these dams are crossing points from the south to north that would have to be defended rather than destroyed.



Figure 135: *At Koknese, fifty kilometers by road west of Jēkabpils and thirty kilometers west of Plavinas, a new high-speed highway has been constructed north of the Daugava River axis avoiding much of the congestion that would otherwise inhibit rapid movement toward Rīga. The eastern end of this P80 highway involves crossing the Pērse River. Three subsequent river-crossings would offer opportunities to force delays to an advance upon Rīga along the Daugavpils – Rīga Operational Direction (See Figures 136, 137, 138).*



Figure 136: *P80 Bridge over the Lobe River.*



Figure 137: *P80 Bridge over the Ogre River.*

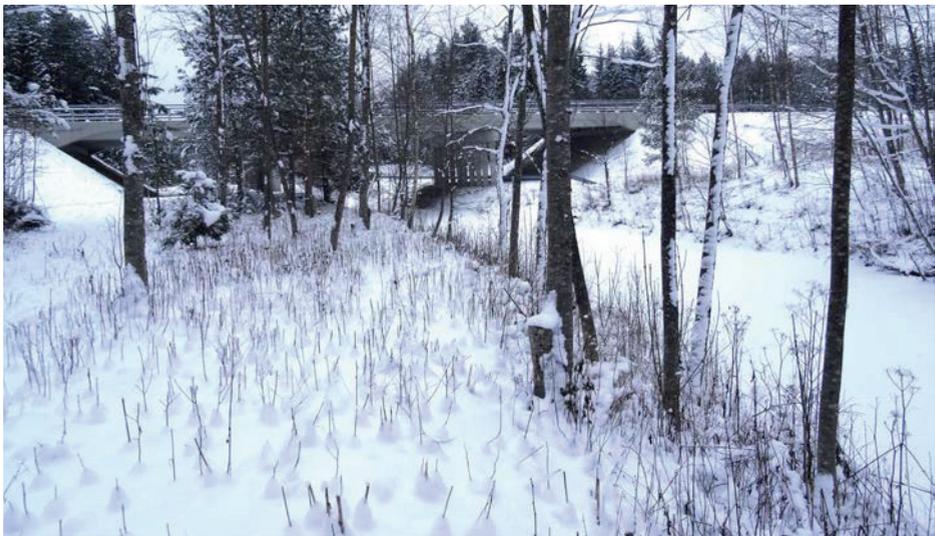


Figure 138: *P80 Bridge over the Aviekste River.*



Figure 139: Aizkraukle Dam, which carries Route P87 over the top.



Figure 140: Kegums Dam, which carries Route P8 over the top.



Figure 141: Lake-side view of road over Kegums Dam.



Figure 142: The dam at Salaspil, on the outskirts of Rīga, which carries a road across the Daugava.

The Vilnius-Kaunas Axis and the Suwałki Gap

The potential operational direction of Vilnius-Kaunas which straddles the main east-west road and rail route to Kaliningrad, would constitute an extremely high risk operation. Given that Vilnius is the current Lithuanian capital and Kaunas was the pre-Soviet Occupation capital of Lithuania, it is unlikely that the Lithuanians would declare the two cities as “open” to avoid them becoming active combat zones. Fortified, the two cities would most certainly be able to hold out for longer than the ten days of energy supply in Kaliningrad, thereby denying Moscow its most likely purpose for launching an invasion of Lithuania. As mentioned earlier, from Vilnius south to the border with Poland, the terrain constitutes a forested barrier penetrated by few roads (See Figure 143), and backed by numerous water barriers once the terrain does open up. This particular terrain feature of forests backed by water barriers continues into eastern Poland south for nearly 100 kilometers

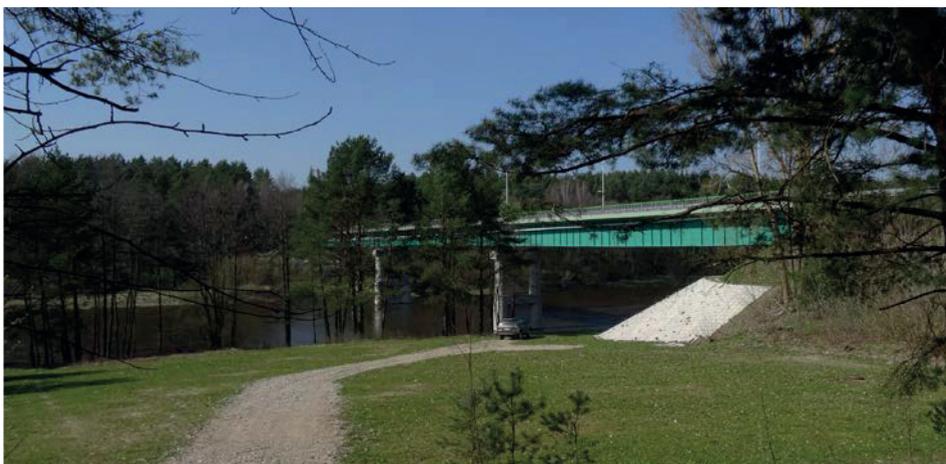


Figure 143: Even in the forests along the Lithuanian border with Belarus, rivers constitute an additional complexity to movement. This photograph is of the Nemunas River at Druskininkai, near where the Lithuanian, Polish, and Belarus border meet. Photo taken from the right bank, just west of the city.

to Białystok. The City of Suwałki, lying more than 50 kilometers west of the Belarus border behind challenging terrain, when considering the consequences of provoking a direct conflict with Poland, therefore, is an unlikely objective. The limited transportation network connecting the Baltic States with the remainder of NATO that runs through the so-called Suwałki Gap, being only 100 kilometers (60 miles) wide, however, would leave logistics flowing north from Poland vulnerable to fires (See Figure 144).

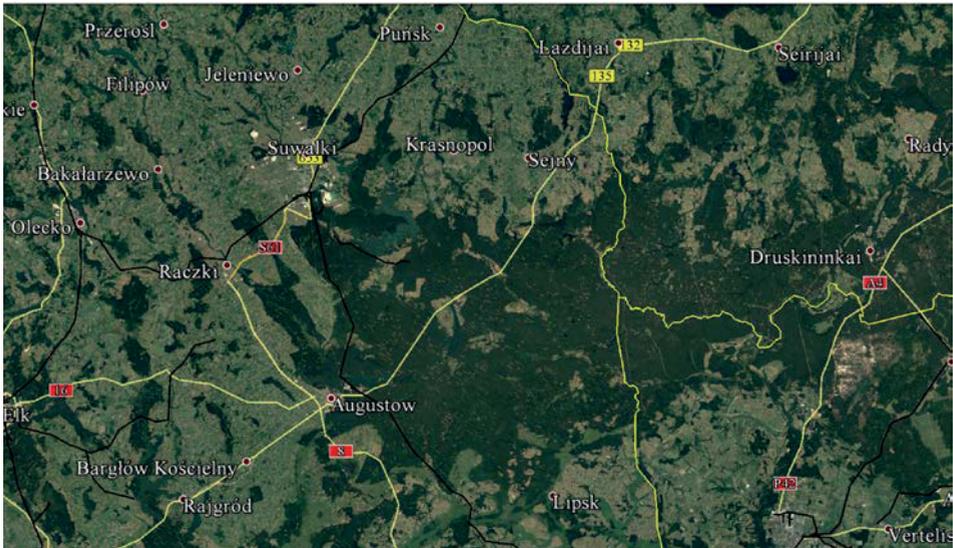


Figure 144: The city of Suwałki dominates the road and rail network of north-east Poland. Heavily forested terrain and significant water-barriers lie between Suwałki and the Belarus border. This challenging terrain also provides the opportunity of defending against the Russians doing an “end run” of the Lithuanian-Belarus border. Further to the south, the same challenges would allow for the Poles to offer a stiff defense of Augustow.

Strategic Offensive War-Termination Operation

There are indications that the Russian General Staff understands that it cannot defeat NATO in the classic terms of destroying the armed forces of the NATO alliance and subjugation of its members to occupation. The General Staff's task, therefore, must be to, first of all, **not lose a war with NATO such that regime change can be imposed upon Moscow**. Secondly, the General Staff is motivated to compel NATO and any of its cobelligerent states **to enter into negotiations on terms favorable to Russia**.

Whereas the Federal Republic of Germany was the center of gravity (COG) for conflict in the central region during the Soviet era, the new COG is Poland. If Poland could be forced from the NATO alliance during any conflict in the region today, Russia could hope to escape defeat and, perhaps find victory. **Without Poland, the Baltic States cannot be held, and failure to successfully defend the Baltic States would likely mark the end of the North Atlantic Treaty Organization**. **The challenge for the Russian General Staff is how to plan a strategic offensive operation that would neutralize Poland**.

Applying Russian General Staff planning norms to the geography of the region, it becomes possible to identify two additional operational axes of advance within the Western Strategic Direction of the European *TVD* and speculate on how a Russian strategic offensive operation might be conducted (See Figure 145).



Figure 145: Although a risky operation given the current balance of forces between Russia and NATO, encirclement is the traditional operation of preference for the General Staff. So-called battles of penetration that usually amount to a twenty-four hour operation and involve moving as deep as 50 kilometers into an enemy's defensive depth, are expensive – usually costing up to one-half of all losses suffered in the encirclement operation. The goal is to fight only one battle of penetration and destroy the defending force before it can withdraw to reestablish a new defensive line.

Given the Muscovites' historical propensity for encirclement operations, it is possible to anticipate how such an operation might be planned by the Russian General Staff should a sizable portion of the Polish ground forces successfully be diverted to southwest Lithuania and northwest Poland.

If one divides contemporary Poland into geographic quadrants along a general north to south line from Gdańsk to Łódź and along a general west to east line from Poznań to Warszawa (Warsaw) — the Wisła (Vistula) and Bug Rivers form barriers that could serve as secure shoulders for operational arms of encirclement south from Kaliningrad and west from Belarus. The convergence of the two rivers twenty kilometers to the north of Warsaw means that the Polish capital would be outside occupied territory, but within the range of Russian artillery. Holding a substantial portion of Polish ground forces and the nation's political center hostage would substantially improve Moscow's negotiating position in terminating the conflict on favorable terms.

The Western (Vistula) Arm of Encirclement

On the Vistula arm of the encirclement, the initial operational objective would involve the cities of Elbląg and Olsztyn and the barrier between the two cities formed by the S7/E77 highway, the Elblaski Kanal, and the numerous small lakes that run to within fifteen kilometers of the Vistula itself. To the north of this natural defensive terrain, the Poles have garrisoned forces at Bartoszyce and Braniewo, the headquarters of which would be immediate tactical objectives in any Russian offensive since they are fewer than 10 kilometers from the Kaliningrad border. (See Figure 146)

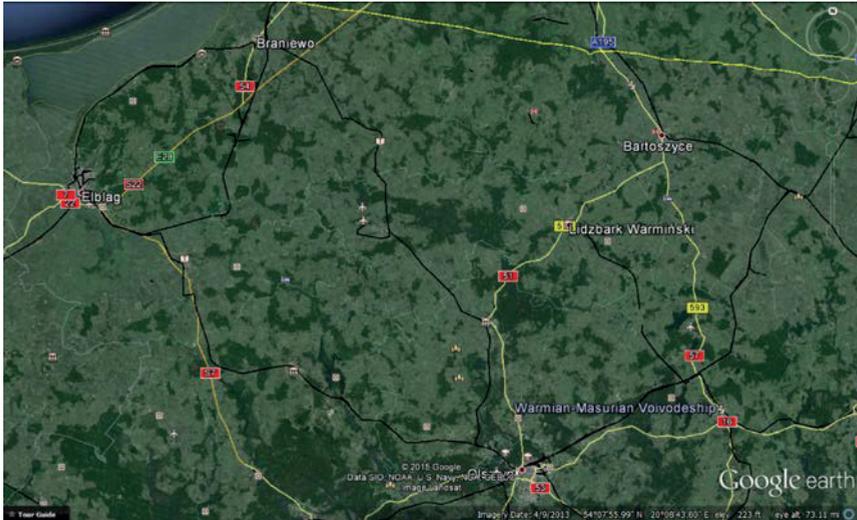


Figure 146: The Poles have garrisoned forces at Braniewo and Bartoszyce along the border of Kaliningrad Oblast, where their barracks and equipment are in range of Russian artillery. Braniewo and Bartoszyce both lie on small streams that would constitute no more than tactical obstacles (See Figures 147 and 148). The Elblaski Kanal and the numerous small lakes between Elbląg and Olsztyn are the only operational-scale defensive line between the Kaliningrad border and the Vistula River. North of this line the terrain alternates between open and broken (See Figures 149 and 150).

The subsequent tactical objective would likely be the Nogat River line between the Baltic Coast and the Vistula River, and from that point south along the Vistula to Bydgoszcz, which will be necessary to protect the subsequent operational rear of Russian forces advancing in a southeasterly direction toward Warsaw. The tactical objectives on this immediate operational axis of



Figure 147: The city of Braniewo, with its population of 18,000 lies on the Pasłęka River about 5 kilometers from the Vistula Lagoon, about 35 kilometers northeast of Elbląg, 55 kilometers southwest of Kaliningrad City, and only six kilometers from the border with Russia’s Kaliningrad Oblast.



Figure 148: As can be seen from the above photo, the Łyna River at Bartoszyce – with a population of more than 25,000 – poses no particular difficulty as even a tactical-scale barrier.



Figure 149: Broken terrain north of Dobre Miastro, approximately halfway between the Kaliningrad border and Olsztyn.



Figure 150: Open terrain approximately twenty kilometers north of Olsztyn.

advance would include six bridges so as to prevent counterattack from Polish or other NATO forces from the West. The terrain between the Nogat and Vistula Rivers consists of rivers, canals, and swampy terrain that could become a “sink-hole” for troops sorely needed elsewhere, so for the Russians there is little need to accomplish more than control the Route 7 and Route 22 bridges and the ferry over the Nogat.

While the Route 7 bridge over the Nogat (See Figure 151) could be destroyed easily, the three bridges (road, rail and pedestrian) located at Malbork present a more challenging task because the city lies on the right bank, thereby making the bridges easier to protect by defending forces (See Figure 152). This is not to preclude that the attacker wouldn't seek to neutralize the Route 7 (See Figure 153) and Route 22 bridges (See Figure 154) and ferry (See Figure 155) over the Vistula River. It is simply important to understand that doing so would be unnecessary and pose a drain on limited resources.



Figure 151: Route 7 between Elbląg and Gdańsk over the Nogat River, ten kilometers west of Elbląg.



Figure 152: The three bridges over the Nogat River at Malbork include a road (lower left), a pedestrian bridge (seen in front of the rail bridge on the lower right), and a rail bridge (seen in the upper photograph). It is important to note that the three bridges over the Nogat which runs along the West side of the city, are especially defensible because the old Tutonic castle in the city could be turned into a fortress from which to defend the bridges. Thus, Malbork constitutes a potential bridgehead from which Polish or NATO forces could launch a counterattack deep in the rear of the Vistula arm of encirclement. As a result, Malbork must be captured or destroyed for a Russian encirclement operation to be successful.



Figure 153: The Route 7 bridge between Elblag and Gdańsk over the Vistula River.

Route 22 Vistula Bridge

(Note that the
floodplain is enormous)



Figure 154: The Vistula River is not particularly wide where Route 22 crosses over it, but it has an enormous floodplain that could make the river impassable without the bridge.



Figure 155: The ferry at the mouth of the Vistula ferries vehicles both across the river, as well as to and from the city of Gdańsk.

South of the confluence of the Nogat with the Vistula, the Russians would have to seize, or at least destroy, four crossing points over the Vistula before the river turns eastward toward Warsaw – at Kwidzyn (See Figure 156), Grudziadz (See Figure 157), Chelmno (See Figure 158), and at Bydgoszcz (See Figure 159). Only Grudziadz “shields” its bridge over the Vistula from an attack from East. However, since the city of Bydgoszcz would not be a critical objective, this tactical axes wouldn’t require extensive forces. Once the prepared West-East crossing points have been secured, not only the river lines themselves, but the North-South E75/A1 highway would constitute a contributing obstacle to mounting a West to East assault against the Vistula/Nogat river line.



Figure 156: Route 90 bridge over the Vistula River approximately eight kilometers West of Kwidzyn.



Figure 157: Road and rail bridge over the Vistula River at Grudziadz.



Figure 158: Route 91 bridge over the Vistula River three kilometers West of Chelmno.



BYDGOSZCZ
(8th largest city in Poland;
urban population of 470,000)
on the south-west side of the Vistula
River where the river turns
south-east towards Warsaw



Figure 159: This bridge across the Vistula River into Bydgoszcz would be the final objective on this tactical axis designed to secure the right flank of the Vistula Operational Axis.

Once the western flank of the axis of advance is secured, the subsequent operational objective would be the bridges over the Narev River. As Russian ground forces advance south-east from a line approximating Route 16 between Grudziadz and Ostróda, the right flank of the offensive will have to be secured by seizure of the bridges over the Vistula River. This would require not less than four tactical operations to seize Vistula river crossings along the subsequent operational axis of advance on this operational direction.

The first of these tactical axis, directed at Toruń, poses a particularly difficult challenge for a Russian operation because, except for the E75/A1 highway bridge over the Vistula that crosses the river southeast of Toruń, the other three bridges over the Vistula lay between the city and the river (See Figures 160-163). This means that unless the bridges are seized with air-mobile forces in envelopment, the city itself can be used to defend the bridges. Leaving the bridges in the control of Polish forces would mean providing a bridgehead for a counterattack into the flank and rear of Russian forces that would be ever more extended as the Russian offensive moves further Eastward toward Warsaw. Thus, not capturing Toruń might well require more forces to secure against a breakout by NATO forces from the city and a counterattack against Russian forces than would be required to fight into the city.



Figure 160: Western-most bridge in Torun city; photo taken from right bank, looking west.



Figure 161: Rail bridge in Torun city; phototaken from right bank, looking east.



Figure 162: Newest road bridge in Torun (population of 200,000), is the eastern-most bridge within the city.

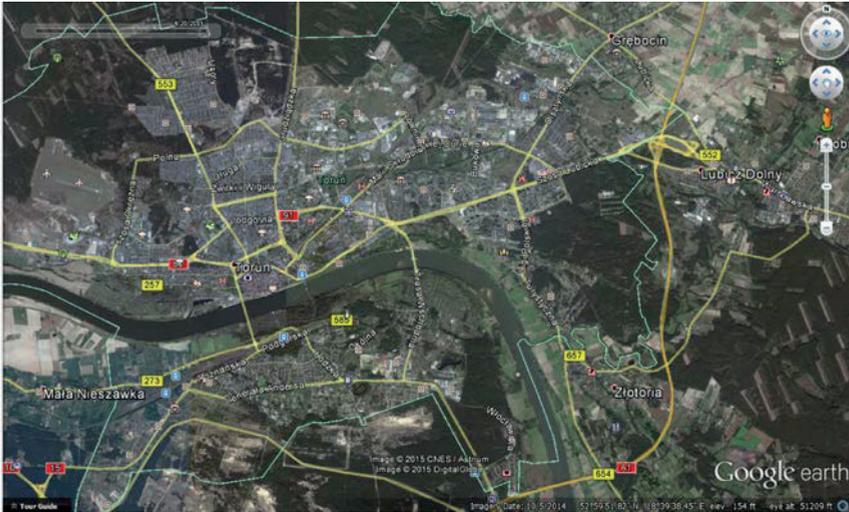


Figure 163: The E75/A1 highway bridge is not screened from the north by the city of Toruń itself and, as a result, might have to be taken down to prevent a crossing by Russian forces that could threaten to encircle the city.

The second tactical axis, directed against Włocławek, would be difficult to defend because the city is on the left bank of the river which is significantly lower than is the right bank of the Vistula. Furthermore, the approaches to the bridge (See Figure 164) and over the dam on the Vistula at Włocławek (See Figure 165) are not particularly heavily forested terrain.



Figure 164: The city of Włocławek as seen from the right bank (north side) of the Vistula River.

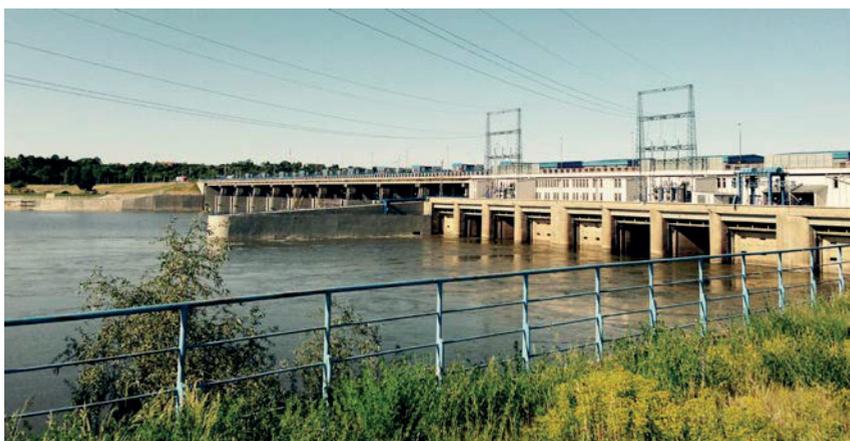


Figure 165: The dam (with road across the top) just east of and upriver from Włocławek as seen from the left bank (south side) of the Vistula River. The woods that can be seen on the far side of the river in this photograph quickly gives way to open terrain.

The third tactical axis would be directed against Płock, and much like at Toruń, the city itself can be turned into a bulwark in defense of the three bridges (note that rail and road beds transit across the same span) over the Vistula. Leaving Płock in the hands of Polish forces would be even more dangerous than leaving Toruń in their control because of the extended lines of communication of a Russian advance at that point in the operation. Having secured the three bridges over the Vistula behind the city itself, Allied forces would have rail and road infrastructure to rapidly move forces and ammunition in support of a counterattack against the right flank of the Russian operational axis. The city and its bridges would be a major Russian objective in any attempt to encircle Polish forces in the northwestern quadrant of the country and bring pressure on Warsaw to withdraw from the Alliance. Should the Poles be able to hold Płock and its bridges, there is little in the way of tactical barriers upon which Russian forces could organize a line of defense for the right flank of its advance toward the Narew River bridges (See Figures 166 and 167).

The fourth tactical axis is focused in the direction of Warsaw. It would have to cover a frontage of some 60-70 kilometers in order to seize the bridges over the Vistula between Wyszogród and the confluence of the Narew and Bug Rivers. The Russian General Staff might view this access as relatively easy because of an expectation that Polish forces would assume a defensive posture in front of the capital but behind the Vistula-Bug river line.

While the four tactical axes described above would secure the flank of the operation, the operation itself would not be directed at capturing Warsaw. The goal of this arm of the operation would be to close the encirclement on the Narew River. In addition to the bridge over the Narew River near its confluence

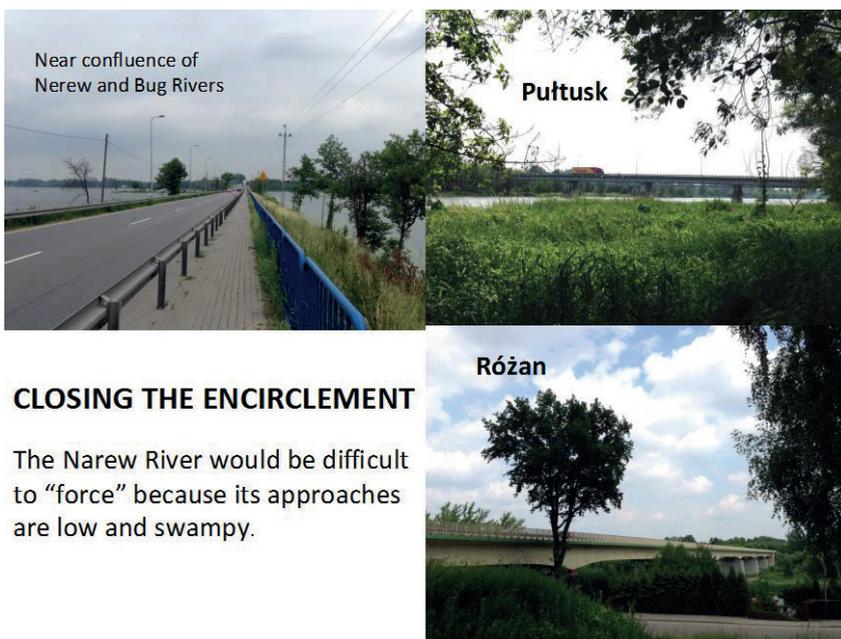


Figure 166: Built-up areas of Płock could be employed in the defense of the two spans (one carrying both road and rail) over the Vistula. Note the open farmland to the north and east of the city, which would provide ample opportunity for conducting a counter-offensive from the city.



Figure 167: This photograph provides a useful perspective on how much higher the terrain is on the north side (right bank on left in this photograph) at Płock. The city has a population of more than 125,000.

with the Bug River, seizing bridges at Pułtusk and Różan probably would be objectives for the forces of this arm of the encirclement (See Figure 168). The bridges further up-river would most likely be assigned to be seized from the forces operating on the Bug River arm of encirclement (See Figure 169).



CLOSING THE ENCIRCLEMENT

The Narew River would be difficult to “force” because its approaches are low and swampy.

Figure 168: From upper left to upper right to lower right, and moving from south to north up the Narew River.



Figure 169: Bridges over the Narew River at Ostrołęka. The photographs of both the new (left) and old (right) bridges provide an accurate impression of the challenges of a forced river crossing presented by the swampy banks of the Narew River.

The Eastern (Bug) Arm of Encirclement

Białystok would be the initial operational objective for the eastern arm of encirclement. While the city itself only lies slightly deeper than the 50-kilometer depth of the tactical zone of engagement, the city dominates this axis.

There are only three main axes within the tactical zone (See Figure 170): 1) Route 19 between Hrodna and Białystok; 2) Route 65, which is the shortest route between the Belarus border and Białystok; and 3) Routes 66 and 19 from the direction of Brest. On the northern-most route, open terrain along the rail line from Belarus makes a movement to the south toward Sokółka relatively easy, with only a single small stream to cross. The relatively open terrain on the approach to Sokółka directly from the East provides maneuver room to a depth of about 20 kilometers from the Belarus border (See Figure 172). Furthermore, the stretch of the first ten kilometers southwest from Sokółka toward Białystok consists of rolling terrain interspersed with the occasional

wooded area (See Figure 173). However, for the next twenty kilometers, the terrain toward Sokółka is heavily wooded and swampy, making off-road maneuver challenging.

The route directly west from Belarus toward Białystok has to traverse wooded terrain that would be relatively easy to defend with troops familiar with it. Either way – from the northwest or west – as one moves closer to Białystok, the terrain gets more wooded and occasionally swampy complicating off-road maneuvering (See Figure 174).

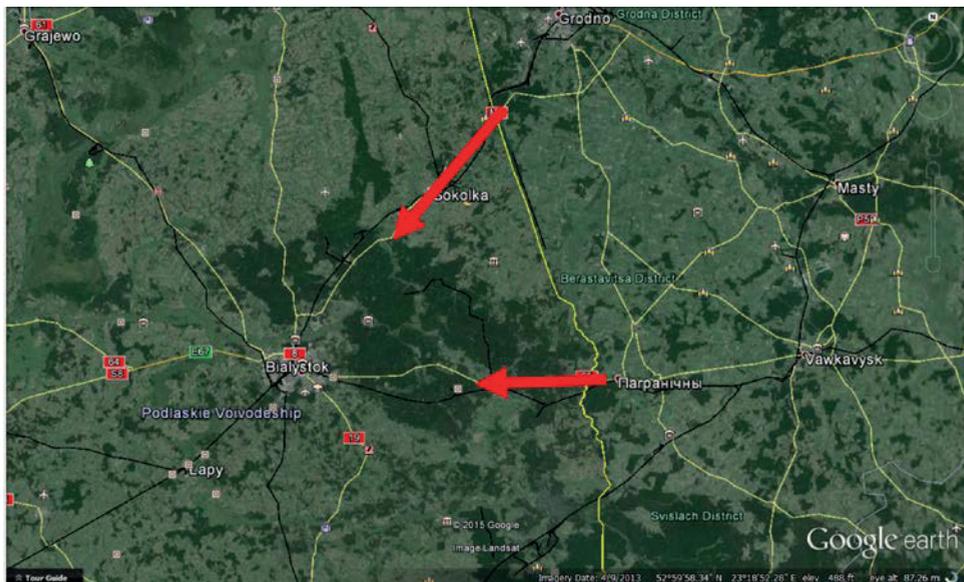


Figure 170: Białystok is a critical rail junction (See Figure 171) controlling rail movement in six directions: in three directions from the east as well as in three directions further into the depth of Poland. Should the Sokółka (population of nearly 19,000 of which a sizable minority are Tatars) railyard be captured by the Russians, it would undoubtedly serve as a logistical hub for the entire Bug River operational arm of encirclement.



Figure 171: Three rail lines run between Belarus and Warsaw via Białystok. Photograph looks eastward toward Belarus.



Figure 172: This photograph is representative of the terrain moving south from Sokółka. It is forested to the West and more open to the East.



Figure 173: Rolling terrain southwest from Sokółka, looking toward Białystok.



Figure 174: Forests and swampy terrain shield Białystok from every direction, except from the southern approach (from the direction of Brest), but even the southern approach has to cross the Narew River.

An attack from the direction of Brest, Belarus, would easily be the most threatening to the defense of Białystok because this axis would contain parallel high-speed road and rail transit, and would come at the city from the most open terrain (See Figures 174 and 175). To fix the defenders at Białystok, the General Staff would most likely attempt to capture the Narew River line and isolate the defenders in the city (See

Figure 177). Once encircled, the defenders at Białystok would face significant challenges because the terrain West from the city does not favor rapid movement that would facilitate withdrawal. South and west of the Narew the terrain is more open for a rapid advance westward.

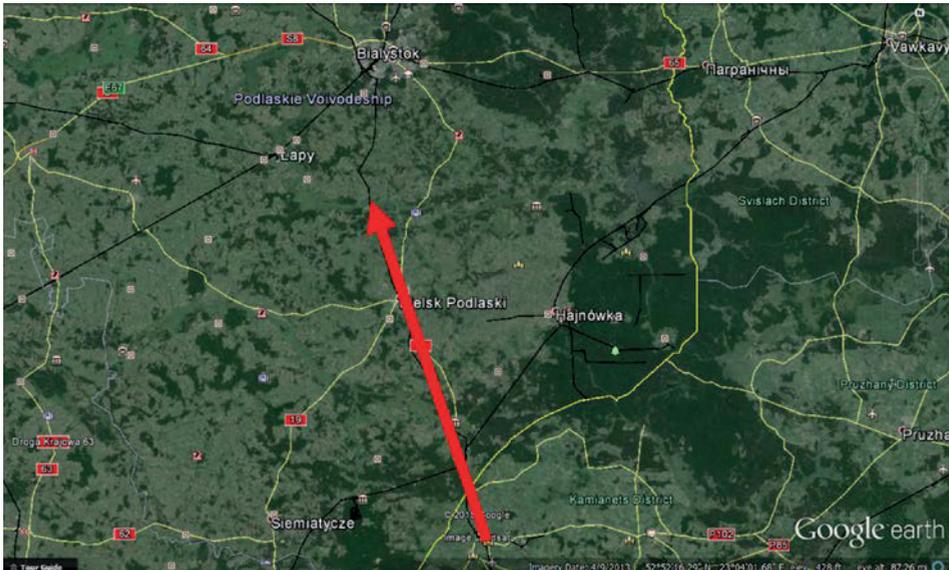


Figure 175: The terrain from Brest, Belarus is much more open than the swampy and forested lands laying along the Belarusian border west of Białystok. Just like the two more northerly axes, the southern axis enjoys both road and rail to support movement into the depth of Polish defenses.



Figure 176: While the terrain toward Białystok from Brest is more open, it remains low and appears to be subject to occasional flooding.



Figure 177: The Narew River drains the swamps that run along the Polish-Nelarus border. The lowland swampy terrain depicted in these photographs were observed in June 2015, after what was considered a very dry winter.

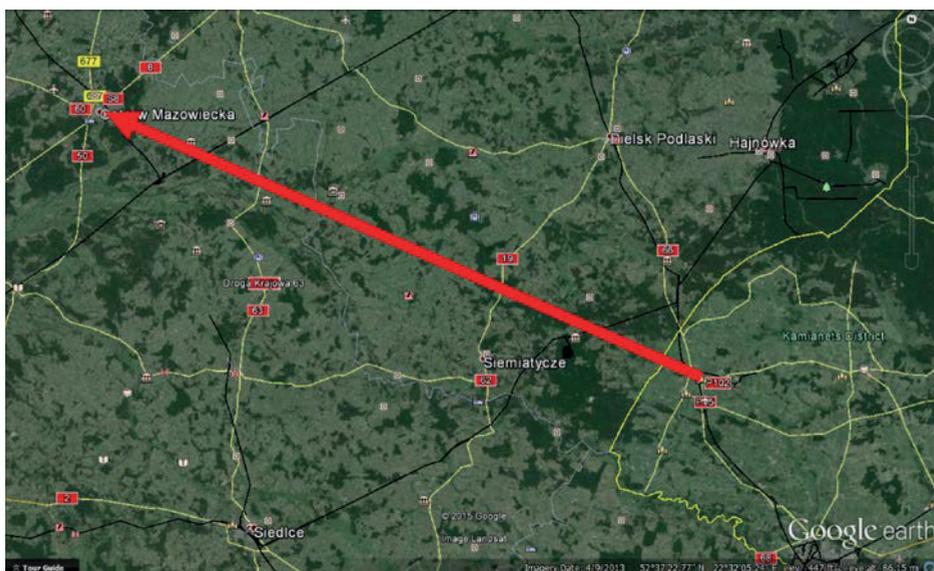


Figure 178: The advance westward to a link-up with the Russian forces moving eastward in the direction of Warsaw would cut across relatively open terrain.

Behind Białystok, the city of Ostrów Mazowiecka would be key to preventing the encirclement from being closed (See Figure 178). If Russian forces gain control of Ostrów Mazowiecka, they would be able to move in all directions against the Narew river line. The left flank of this arm of encirclement would also hedge on seizing and holding the road bridges over the Bug River – seven of them (See Figures 179-186) – as well as the one ferry landing and three rail bridges – between the Belarus border and the confluence of the Bug and Narew Rivers to protect the forces moving along this operational axis from counterattack by Polish forces operating south of the Bug River.



Figure 179: The first of three bridges needed to secure the rear of Russian forces attacking Białystok from the south. Bug River at Rt. 19, indicating the difficulty of getting into and out from the marshy terrain.



Figure 180: Route 62 crosses the Narew River twice – making it the second and the seventh of the seven road bridges on the left flank of the Russian encirclement operation. Although the banks were firm at this crossing point in June 2015 the height of the banks could pose problems with attempts to ford the Bug River.



Figure 181: Route 63 over the Bug River near Nur, Poland is the third bridge from the Belrusian border. If this bridge is secured by Russia forces, it would complicate the relief of Białystok from the south in a timely manner. Low water level resulting from the dry 2014-15 winter exposes a very wide flood plain.

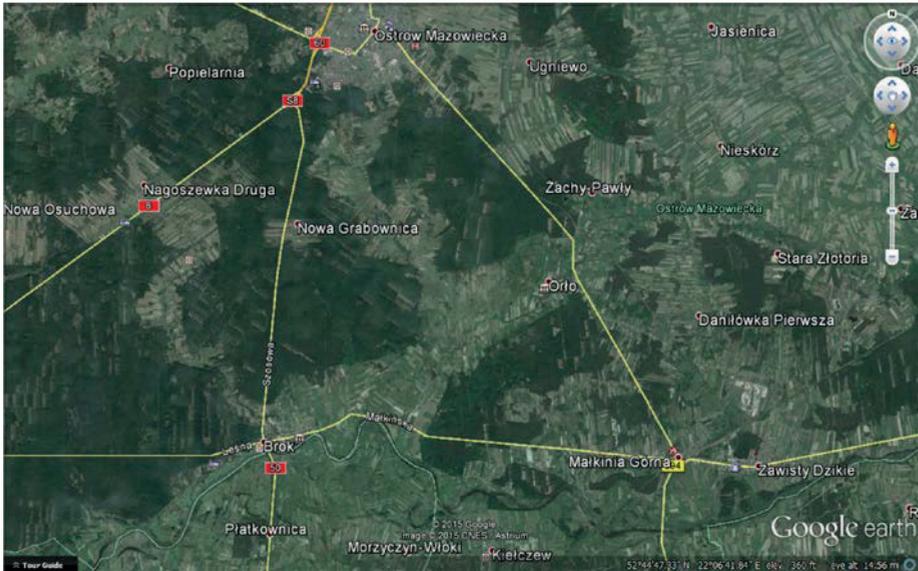


Figure 182: Seizing the bridges over the Bug River at Brok and Małkinia Górna-Treblinka is made easier by the open terrain from the north-east.



Figure 183: What makes the bridge at Małkinia Górna-Treblinka Bridge (Route 677) over the Bug River – the fourth bridge – so critical for the Russian General Staff is the opportunity to cut the parallel rail line to E67/Route 8 to Białystok.



Figure 184: Brok Bridge (Route 50) over the Bug River is the fifth bridge. Left photo is swampy terrain on south side (left bank); Right photo is right bank of river as seen from Brok. Seizing the bridge over the Narew River at Brok not only secures the left flank of the encirclement arm, but also isolates Ostrów Mazowiecka from relief from across the left bank of the Narew.



Figure 185: The sixth bridge over the Bug River is the E67 Bridge East of Wyszaków. While there is not much in the way of built-up areas around the bridge, its approach on the left bank – south side of the river – is

nearly impossible. Destroying this new highway bridge to the east of Wyszaków would be prioritized to preclude rapid movement of Polish forces north to prevent the closing of encirclement from the east.



Figure 186: The Route 62 bridge at Wyszaków, the seventh road bridge over the Bug River (photograph taken from the right bank – west side of river – upon which the city stands). For the Russians, this bridge may be of greater interest to capture, if they assume that the Poles would not counter-attack to avoid civilian casualties in the city. Wyszaków could provide the Russians with a fortified point on the riverline that could facilitate attack on Warsaw from the north.

The Iron Triangle – Holding Warsaw Hostage

Once the operational-strategic encirclement along the Narew River is closed, only one task would remain – placing the Polish capital of Warsaw under direct siege.

To tighten the political grip on Poland by threatening an armed assault on Warsaw itself, the Russian General Staff would need to seize the five bridges (See Figures 187-190) over the Vistula-Bug riverline running some 20-30 kilometers to the north of the city center. This would also place the new Warsaw airport in the hands of the Russians. Closing the operational-strategic

encirclement along the Narew River would occupy approximately one-quarter of Polish territory, hold hostage a sizeable portion of

the Polish Army, and place the Polish capital of Warsaw within range of Russian artillery. If the Russian General Staff had not yet employed nuclear weapons, this would be the point at which Russian forces would be stretched so thin as to almost require Russia to use nuclear weapons in the event Poland refuses to terminate hostilities.

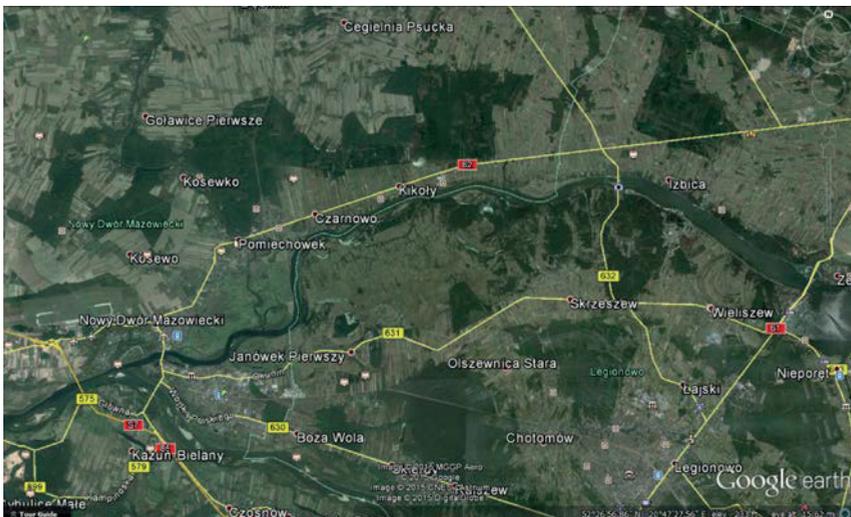


Figure 187 *The bridges over the Vistula and Bug Rivers north of Warsaw clustered, with three (two road and one rail) in the West and two (one over the top of a dam and one over the reservoir it creates) in the East.*



Figure 188: River crossings to Warsaw. Route E77/7 (bottom and upper right as seen from Route 630 Bridge – on upper left) is a high-speed access that delivers its traffic directly to the Warsaw left bank. Route 630 works its way south along the Vistula right bank.

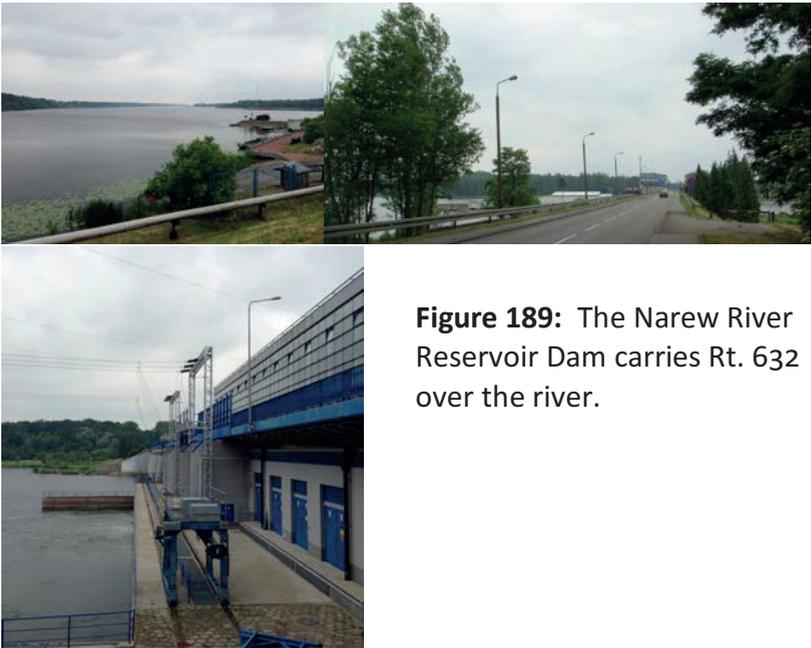


Figure 189: The Narew River Reservoir Dam carries Rt. 632 over the river.



Figure 190: The causeway over the Bug River Reservoir would constitute a high-speed axis directly aimed at the Warsaw right bank.

A Preliminary Operational-Strategic Assessment

Once the initial operational-tactical defenses of Białystok and the line between Elblag and Olsztyn have been breached or bypassed, the natural environment would provide no especially defensible features within the terrain through which an encirclement operation in northwest Poland would have to traverse. Russia, however, would not be able to successfully undertake such an operational-strategic offensive without using the territory of Belarus. The Belarus Government has made clear

that it will do everything possible to avoid being pulled into a Putin war with Europe, but that, in the end, Belarus cannot avoid being with Russia.¹

The Russian Invasion of Poland in 1920

Examining the Bolsheviks effort in 1920 to make Poland the bridge over which communism would pass to Berlin and points west,² General Mikhail Tukhachevsky perceived a frontal assault in the Brest – Warsaw Operational Direction as key to fixing Polish forces in defense of the capital, while an encirclement operation directed between the Narew and Bug Rivers would cross the Vistula River from the north and destroy the Polish Army when attacking from the northwest. While a single Russian army was to attack Warsaw from the south side of the Bug River, having its left flank secured by a single corps along the north bank of the Wieprz River, three Russian armies would capture the right bank of the Vistula River downstream from Warsaw and, crossing the Vistula near Włocławek, were to seize Warsaw from the northwest. With 24 divisions in four armies under the command of Tukachevsky, the Bolsheviks intended to duplicate the 1831 Imperial Russian maneuver of Ivan Paskevich, who had crossed the Vistula at Toruń and reached Warsaw from the west almost unopposed to crush the Poles. The terrain today still favors the possibility of a rapid advance along the Brést –

¹ "Let's be sincere. Europe cannot replace Russia for us, at least not today. We understand that in difficult times, we will always be with Russia," Belarusian Foreign Minister Vladimir Makel said in an interview." Michael Birnbaum, "Belarus president, 'Europe's last dictator,' flirts with the West," *The Washington Post*, May 26, 2015, p. A4.

² General Mikhail Tukhachevsky's order of the day, 2 July 1920 read: "To the West! Over the corpse of White Poland lies the road to worldwide conflagration. March on Vilno, Minsk, Warsaw!" and "onward to Berlin over the corpse of Poland!"

Warsaw axis, but the Pilica and Wieprz tributaries to the Vistula south of Warsaw also still constitute significant barriers that would both support a counterattack against such an attack upon Warsaw from the east, as well as provide a significant barrier to any attack upon Warsaw from the south.

In 1920, the German territory of East Prussia to Poland's north meant that Tukachevsky planned to isolate the Polish Army from being resupplied via Gdańsk – the only port open to shipments of arms and ammunition – by driving west as far as Grudziadz. Today, with Russian forces stationed in Kaliningrad *Oblast* and, thereby, able to attack Warsaw from the northwest, the attack from the east only has to traverse half the distance that Tukachevsky had planned to cover. To keep Polish forces fixed in front of Warsaw south of the Bug River it is entirely possible that the Russians might move forces westward along the south side of the Bug as did Russian General Nikolai Sollohub with the 16th Army in 1920. If this options was executed, within this Tactical Direction south of the Bug, one could expect the Russians to attempt to force the Poles to split their forces along three axes: 1) the line Biała Podlaska – Miedzyrzec Podlaski – Siedlce – Warsaw, more-or-less along the 1920 axis; 2) the line Biała Podlaska – Miedzyrzec Podlaski – Łuków – Góra Kalwaria direction; and 3) the Biała Podlaska – Miedzyrzec Podlaski – Dęblin – Kozienice direction. The last point on this Tactical Direction south of the Bug at which the rail lines of all three directions meet is at Łuków (See Figure 191), some ninty kilometers from the Belarus border.

While the terrain in the Brést – Warsaw Tactical Direction south of the Bug River is flat, it also has frequent forested areas that prohibit dispersal laterally during movement. The first point on this direction that could create logistical challenges to the Russians is the town of Biała Podlaska, which is probably a day's



Figure 191: *Train from the east at Łukow, heading for the bridge over the Vistula River at Dęblin.*

movement from the Belarus border from Brést. While the city of approximately 60,000 could easily enough be by-passed to both the north and the south, the critical rail line passes directly through the city. Biała Podlaska would be the perfect place for Polish Territorial Forces to fortify the city and use it to inhibit logistics support of a Russian attack on Warsaw. Further to the west on this same northern axis of the three under discussion here, Siedlce with its population of over 75,000 and yet another day's movement away from the Belarus border, could also be turned into a strong point by Territorial Forces.

The southern-most axis within the Brest – Warsaw Tactical Direction south of the Bug, Radzyń Podlaski, even though its population of some 16,000 might not suggest that its infrastructure would be conducive to such a plan, since the city has a number of institutional buildings that easily be turned into fortifications (See Figure 192) it too could also become a hard point around which to organize a general defensive plan. Although Radzyń Podlaski is not sitting on a rail line, it does dominate a road junction and retaining control of the city would prevent the Russians from turning it into defensive position

during a Polish counterattack. Further south-west on this same axis, the Tyśmienica River (a tributary to the Wieprz River) and one of its tributaries, the Bystrzyca, create a string of water barriers in front of Kock (See Figure 193). Another 45 kilometers westward, the city of Dęblin, with its road and rail bridges over the Vistula, would be a critical river-crossing point to fortify (See Figure 194). As was demonstrated during the January 2017 HEGEMON Simulation in Warsaw, however, even if the Russians managed to cross the Vistula at Dęblin, turning north to close on Warsaw from the south would be no easy task. During the January Simulation, Polish officers managed to defeat Russian forces at the Pliłica River, which is a significant barrier because of the swampy terrain along the river (See Figure 195).



Figure 192: *A couple of large structures such as that shown in the photogtaph above in Radzyń Podlaski constructed around courtyards, and with open fields of fire around them, would offer defending territorial forces and dismounted infantry the ability to deny Russian forces the ability to construct defenses against counterattack.*



Figure 193: *This photograph, looking northeast on Route 19 in front of Kock, gives an accurate impression of the complexity of a series of water barriers surrounding the village of some 3,500 people as well as along Route 48 connecting Kock to Dęblin that would make off-road maneuver challenging on this axis.*



Figure 194: *The Route 48 bridge over the Vistula River at Dęblin. The rail bridge at Dęblin can be seen in the background.*

The central axis within the Brest – Warsaw Tactical Direction would ride the back of the direct rail line west from Brést,

crossing the Vistula River near Góra Kalwaria with both rail and road bridges (See Figure 196). The city of Góra Kalwaria, with its population of 11,000 residents, sits high overlooking the western bank of the Vistula River, providing a dominant defensive position to oppose a river-crossing from the east.

While it would be foolish to state unequivocally that the Russians wouldn't attempt to repeat the what General Sollohub attempted in 1920 with the 16th Army, the January 2017 HEGEMON Simulation in Warsaw suggested that the result



Figure 195: *The Pilica River, a left-bank tributary of the Vistula River, poses a significant challenge in front of Warka, a city with a population of more than 11,000 on high ground behind the river when approached from the south. The Pilica has a series of “backwaters” (as seen in this photograph) that are not part of the main flow of the river that could result in a river “crossing” depositing a force not on the other side of the river, but on a peninsula or even an island. The terrain could provide ample opportunity for “disintegrating” a river-crossing operation into a series of small-scale engagements leaving attacking forces fragmented and the commander unable to maneuver his forces to affect a pre-planned operation.*

would likely be similar. Again, Moscow doesn't have sufficient forces to adequately screen such an attack from counterattack from the south or, if the Russian force would successfully cross the Vistula south of Warsaw, close on Warsaw from the south. Still, such a tactic might be aimed, not at capturing Warsaw, but drawing off enough Polish forces south of Warsaw as to allow the forces moving south from Kaliningrad *Oblast* to control the bridges over the Vistula River downstream from Warsaw.



Figure 196: *The bridges over the Vistula River at Góra Kalwaria, looking up-river (i.e., left bank is on the right side in the photo. Note how low the Vistula was in June 2017. For all intents and purposes, the island over which the rail bridge passes on the left side of the photograph is no longer an island. At the time the photograph was taken, the major barrier was no longer the river, but the flood-control dikes on either side of the river. Photograph taken by Charlie Long with Potomac Foundation drone.*

Russian Air Operations

While the Russian General Staff is likely to attempt to suppress NATO airpower during the first days of the overt employment of its combat forces, this effort would be very challenging given the ability of NATO forces to operate air assets away from main bases.

During the Soviet era, its combat potential modelers assessed that one-half of NATO's combat potential was air-based. This is why the Soviets planned to conduct an air operation (*воздушная операция*) to prevent NATO's air power from being a factor during the initial 3-5 days of a conflict in central Europe. In anticipation of such an effort, NATO planners should aim to disperse airpower as well as associated ground support aircraft and command-and-control.

Survivability and usability of NATO airpower during the first days of any overt Russian strategic offensive operation would likely determine the outcome of the conflict. This reality has motivated the Russian General Staff to not only give thought to the necessity for increasing the density of ground-based air defenses in Kaliningrad, but to the important contribution that could be made by extending air defenses north of Kaliningrad out into the Baltic Sea. Thus, the defense against possible assault landings by Russian airborne forces on the Estonian islands of Saaremaa and Hiiumaa should be accorded a special consideration.

Although it would probably be “an island too far,” and a low-probability scenario, the Russian ability to seize and hold the Swedish island of Gotland – even for a short period of time – could prove decisive in preventing a timely Western response to the occupation of the Baltic States and the launching of an attempt to take Poland out of the conflict.

THE POTOMAC FOUNDATION

The Potomac Foundation (TPF) is an independent, non-profit research organization dedicated to improving the quality of public discourse and national policy formulation. The Potomac Foundation experts design and conduct strategic exercises and simulations for government and private clients; host closed and public workshops, conferences and meetings; publish reports and policy briefs; testify before congressional committees; and offer analyses and commentary to US and international news media outlets.

THE BALTIC DEFENCE COLLEGE

The Baltic Defence College (BALTDEFCOL) was founded in 1999 by Estonia, Latvia and Lithuania with support from their allies and partners to educate military and security related civilian personnel of the Baltic states, allies and partners; to promote international cooperation and encourage networking; and to contribute to security and defence policy related research. BALTDEFCOL serves as a professional military education institution at the operational and strategic level, applying up-to-date educational principles, effective management and best use of intellectual and material resources. The vision for College is to be a modern, future-oriented, attractive and competitive, English language based international defence college with a regional focus and Euro-Atlantic scope.