

KREMLIN KONTROL

RUSSIA'S POLITICAL-MILITARY REALITY



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Cover

The cover focuses on the three faces most responsible for the institution of control measures over civilian and military affairs in Russia: President Vladimir Putin, Defense Minister Sergey Shoygu, and Chief of the General Staff Valery Gerasimov. The title of *Kremlin Kontrol* is used to stress two things, that it is from leadership directives that everything of significance in regard to Russian national interests is decided or acted upon; and that the system of control over civilian and military issues is designed to help neutralize feelings of insecurity or vulnerability among Kremlin elites. Cover image attribution:

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FOREWORD

In 2016 Russian President Vladimir Putin and Chief of the General Staff Valery Gerasimov instituted sweeping changes that have reorganized the country's security forces and reestablished the nation's military prowess. This study, *Kremlin Kontrol*, aims to describe how control over the security services and the military have hastened those changes.

The study is divided into two parts. Part One, "The System of Civilian Control and Objective Thought," has four chapters. Chapter One examines the development of a National Guard, which many view as Putin's personal Palace Guard. Chapter Two looks at cadre changes and an internal control mechanism known as sistema. Chapter Three discusses Russian use of the media and cyber incursions during 2016 to manipulate foreign audiences. It also discusses Russia's methodology of the lie. Chapter Four discusses Russia's 31 December 2015 National Security Strategy, and the 2016 Information Security Doctrine and Science and Technology Strategy. Part Two, "The System of Military Control," has five chapters. Chapter Five surveys the theory of Russian military thought, while Chapter Six discusses Russian officers' views on the theory. Chapter Seven reviews five key speeches Gerasimov made over the past four years. Chapter Eight offers some new information on the Russian concept of reflexive control and its ability to manipulate Chapter Nine examines Russia's National Management Center and how it was used during command and staff exercise Kavkaz-2016. Chapter Ten explores the rationale behind Russia's campaign in Syria and how the fighting has progressed. Chapter Eleven, conclusions, explores the implications of *Kremlin Kontrol*.

The study supplements the author's two prior studies, *Recasting* the *Red Star* and *Military Strategy*. It offers an understanding of Russia's political-military control mechanisms today.

Thomas Wilhelm Director, Foreign Military Studies Office 2017

DEDICATION

This study is dedicated to my wife, our children and their spouses, and my grandchildren—thanks to all of you for your encouragement and support through the years.



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The author is solely responsible for the selection and analysis of the material in this work.

There are several people to thank. In particular, the author would like to acknowledge the support of three individuals. First, Dr. Harold Orenstein, formerly of FMSO, deserves special recognition. He provided countless hours to the development of this study, and translated several key documents from Russian into English, to include four of the five lectures of Chief of the General Staff Valery Gerasimov. He also edited the entire document. His assistance was absolutely vital to the publication of this study. Second, special recognition is due to Mr. Hommy Rosado, also formerly of FMSO, who designed the artwork for the cover and the study's sections. Mr. Rosado's images enhance the ties between words and concepts. Thanks are also due to Ms. Cindy Hurst, who took Dr. Orenstein's translations and developed English graphics for Russian explanations of new-type warfare and reflexive control.

Finally, the author would like to express his thanks to the FMSO staff: director Mr. Thomas Wilhelm for ensuring time was available to write this study and for his coordination work with the TRADOC staff; deputy director Kent Baumann for his development of the final version of the study for publication and for ensuring funds were available; and Thomas Kruegler for helping with the clearance process.



INTRODUCTION

Authoritarian regimes are, by their very nature, insecure. They tend to view Western democracies as an existential threat to their way of rule and they fear the development of any type of opposition or protests in the streets. In Russia's case, the latter fear of protests leading to a "color revolution" often appears as important as the ISIS threat to its southern border. Lacking political legitimacy, they rely on two factors to sustain their leadership, patriotism and control. This study discusses the latter issue from both a civilian and military point of view.

Russian President Vladimir Putin, a former KGB operative, is all about control. In his excellent book *The Invention of Russia*, Arkady Ostrovsky recounted one conversation about Putin: "Anything you control is safe. Anything you don't control by definition represents a threat—that is their mental framework, and a KGB officer is always a KGB officer." Ostrovsky notes later that control of the flow of information is power in Russia, and Putin puts great emphasis on control via state media.

This work is divided into two parts. Part One looks at the system of control that Putin has either continued or developed anew in his twelve years as president. While the focus is on civilian issues, it also focuses on the security services in particular as agents of control.

Chapter One focuses on Putin's system of control over his own security. First it discusses his development of a personnel "Palace Guard" in the form of a National Guard. Chapter Two discusses the numerous cadre changes Putin made in 2016 to inject new blood into his decision-making circle and to balance his security services against one another. The chapter also looks at the furtherance of the notion known as *sistema*, which author Gleb Pavlovsky believes will outlast Putin.

¹ Arkady Ostrovsky, *The Invention of Russia*, Viking Press, 2014, p. 240.

² Ibid., p. 280

Chapter Three focuses on the topic of the manipulation of objective reality by Putin's various media outlets and his utilization of the "half-truth." Objective truth is absent in Russia unless one considers the daily output of propaganda from Russian sources as the most recent revelation of "truth." Putin's propagandists develop new truths almost daily. The chapter goes on to look at Russia's numerous attempts to persuade the world that it had nothing to do with the downing of Malaysian Airlines flight 17 or with the doping of its athletes at the Sochi Olympics. Both attempts failed to persuade anyone with Russia's version of "truth" outside, perhaps, of his domestic audience. A short section on the cyber-attacks associated with Russia's alleged attempts to influence the US elections in November is included in the discussion.

Chapter Four first examines the listing of strategic and national interests that were outlined in Russia's *National Security Strategy*. It then moves on to examine Russia's new *Information Security Doctrine*, *Science and Technology Development Strategy*, and *Concept of Foreign Policy*, all new documents released near the end of 2016. They aim to exert more control over Russia's ever expanding geopolitical chessboard. In the end, Russia is searching for what it terms equal security, strategic stability, territorial integrity, and sovereignty.

Part Two is focused on several military aspects of control. These include not only command and control issues but also the methodical manner in which Russian military analysts establish control parameters over their environment.

Chapter Five examines the four components of how Russia's military expects to uncover and exert control over an ever-changing military environment. Russian analysts continuously monitor emerging trends that appear to impact the character of war. They use these trends to make forecasts about the nature and shape of future conflicts. Organizations, weapons, and military art are then created to handle this evolving nature of war, and the proper correlation of these forces are applied. Chapter Six discusses the views of Russian officers on these topics.

Chapter Seven examines the speeches that Chief of the General Staff Gerasimov made at the nation's Academy of Military Science. Most of the attention was focused on the speech he made in 2013. However, there were actually several elements of the 2013 speech, to include graphs and tables, which were not covered in the press but are included in the discussion here. Gerasimov's later speeches also had some very interesting points to consider.

Chapter Eight examines the Russian concept of reflexive control, to include some new discoveries in the way the term is defined and used by the military. In the Russian context the concept, in general, consists of having an opponent think he is doing something for himself when he is actually doing an action for the Russians.

Chapter Nine looks at Russia's new National Defense Management Center, which is a command and control center that allegedly exerts control over three distinct issues: combat, the strategic nuclear force, and everyday activities. In the latter part of the chapter the recent exercise Kavkaz-2016 is examined for the way it attempted to tie control of the military with that of local governors and businesses in a way that mobilized the region for the exercise. This is apparently tied to how Russia would respond to a major future war.

Chapter Ten examines Russian actions in Syria and what they have accomplished. There have been highs and lows. Here, forms and methods of enemy actions are considered, and Russia's use of its aerospace and special operations forces and lessons learned from actual combat are discussed.

Chapter Eleven concludes the work with a discussion of the implications of these changes. There are two appendixes, one that covers Russian commanders' comments on the war in Syria; and a brief discussion of an article that appeared in late 2016 in *Military Thought* on forecasting.

Overall, the study is unique in its attempt to examine Russia's civilian and military control issues in such detail. Hopefully it will achieve its goal of pointing out how Russia is moving toward its goal of

achieving strategic stability and equal security through its exertion of control over geopolitical, military, and domestic agendas.

PART ONE





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https://commons.wikimedia.org/wiki/%D0%9C%D0%BE%D1%81%D0%BA%D0%B2%D0%B0#/media/File:Kremlevskaya_Naberezhnaja_Moscow.hires.jpg,

CHAPTER ONE: THE NATIONAL GUARD: PUTIN'S PALACE GUARD OF CONTROL

At the bottom of the Kremlin's neurotic view of world affairs is the traditional and instinctive Russian sense of insecurity...This thesis provides justification for that increase of the military and police power of the Russian state...Basically this is only the steady advance of uneasy Russian nationalism, a centuries-old movement in which conceptions of offence and defense are inextricably confused—George Kennan, 1946³

Introduction

Authoritarian systems are, somewhat unexpectedly, some of the most insecure systems in the world. Those in power envision enemies everywhere, both inside and outside their jurisdiction, who want to topple them by coups or insurrections, even though they are totally in charge of affairs. Kennan's comments some 70 years ago still resonate when examining present day Russia. The instinctive sense of insecurity remains, as Putin's recent reshuffling of cadre and security forces appears to imply. Shaking up the system prevents the development of factions opposed to the leader.

To protect himself and provide protection and insurance against color revolutions, coups, and other perceived threats, it appears that President Vladimir Putin has developed three counters: the development of a personal protection agency, or Palace Guard, the topic of this chapter; continual cadre changes to accommodate generational changes or balance the influence of personalities, and an arrangement for implementing instructions known as *sistema*. The latter are the topics of Chapter Two.

This chapter first examines Putin's development of *Rosgvardiya* or National Guard (NG), which serves as a Palace Guard against many of

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³ Special Report (insert), "Russia," *The Economist*, 22 October 2016, p. 11.

the things he fears. It discusses the rationale for the Guard's creation, the weaponry with which it is outfitted, and the personnel who are manning the important positions within the Guard.

Russia's National Guard or Rosgvardiya

Elections in Russia have seldom resulted in the opposition actually standing a chance against an incumbent. The fight is for seats in the Duma and not real power. Putin thus worries less about competitors who want his job and more about internal problems arising from issues such as economic shortages or protests over controls exerted by the security services (control over Internet access, etc.). As one journalist caustically noted, the "enemy within" is more dangerous to Putin than "perfidious NATO."⁴

These issues have a history, as demonstrated by the manner in which Soviet leaders were selected and how they dealt with the population. Soviet leaders were selected by the Politburo until 1991, when things changed after then-President Mikhail Gorbachev was removed from power. Worry over the influence of the population and potential presidential contenders apparently was on the mind of then-President Boris Yeltsin, who thought a National Guard (NG) would help protect the constitutional system and democratic gains. Then Defense Minister Pavel Grachev was against the formation of a parallel entity even though, at the time, the influence of the *siloviki* (the power security forces) had waned. Yeltsin apparently felt otherwise.

The idea of converting the Internal Troops of the Ministry of Internal Affairs to a NG thus became a point of discussion even then. Lieutenant Colonel V. P. Vorozhtsov wrote an article for the journal *Military Thought* on the NG's pros and cons in 1992.⁵ However, the concept did not catch on. The idea was raised again in 2003 and 2004 when Putin carried out his first security force reform, yet once again the

⁴ Aleksandr Golts, "Congratulations on Your New Special Service," *Yezhednevnyy Zhurnal*, 6 April 2016.

⁵ V. P. Vorozhtsov, "Russia's National Guard: Pro and Con," *Military Thought*, No. 1, 1992, pp. 21-25.

idea died on the vine.⁶ However, by the time the 2014 military doctrine was published, Russia felt threatened by attempts to destabilize the country from within the state, and therefore a NG again was contemplated.⁷ Most discussions were internal to the administration and, as a result, it came as a surprise when, on 5 April 2016, it was announced that the NG, a new security agency structure, had been created in Russia. This new structure would require changes to 25 laws to establish the NG and another 27 to abolish other associated services, so it would take some time to legislate the required changes for the transformation to a NG.

The following discussion details how the NG was created. The discussion has four parts: the reasons for the NG's existence; the weapons that outfit the NG; the manning of the NG, to include who was chosen for a position, and why; and a temporal view of how the NG has developed since its inception, to include the legislation, personnel, and activities associated with the guard. The analytical framework extends from April to December 2016.

Reasons for the NG's Creation

There were a number of reasons listed for the decision to create the NG. Aleksandr Sukharenko, director of the Center for the Study of New Challenges and Threats to National Security, described tasks, powers, and reasons for the NG shortly after its creation. He noted that the main tasks of the draft law included the joint protection of law and order together with the police; the fight against terrorism and extremism; the protection of state establishments and special freight; the protection of the territorial defense of the country; and the assistance to border guards to protect the state border. Powers included the ability to arrest lawbreakers, enter residential premises to conduct searches or arrests, cordon off terrain or residential areas, and use physical force, along with special weapons and equipment. Two further reasons Sukharenko

⁶ Tatyana Stanovaya, "The President's Guard: How Does the New Super-Department Change the *Siloviki*'s Configuration?" *Politkom.ru*, 11 April 2016.

⁷ Ilya Kramnik and Konstantin Bogdanov, "The Cardinal's Guard, A Parallel Army Has Been Formed in Russia," *Lenta.ru*, 6 April 2016.

provided were creating a pro-presidential army for the regime's protection from malcontents or color revolutions; and the president's distrust of the heads of other special services in case of a coup or the aggravation of internal political conflicts.⁸

Several months later, in November, Aleksandr Khinshteyn, a top advisor to Colonel-General Viktor Zolotov (whom Putin named as the first commander of the NG), was interviewed. His role is to prepare draft laws and normative acts for the NG, to provide media coverage of its activities, and to create a positive image of the NG. He conveyed a more official view for the reasons behind the NG's creation, stating that the aims and objectives are located in the law "On the Troops of the National Guard"; and that the NG's aim is to provide "a response to fresh challenges of the time, linked to the rise of extremism and terrorism, not so much in Russia as in the world..."9 Khinshteyn added that the NG units have missions both internal and external to Russia. such as serving with the Collective Security Treaty Organization. He noted that the NG was not created to restrict either the Federal Security Service (FSB) or other existing operational investigative bodies, and that the NG does not have the right to conduct operational investigative activities.

Khinshteyn's comments, of course, were in response to other assertions made about the reasons for the NG's creation during 2016, some of which included the following:

 The edict creating the NG on 4 April stated the reason was "for the purpose of ensuring state and public security and protecting human and civil rights and liberties." In addition to this political goal, there are

⁸ Aleksandr Sukharenko, "All-Russia City Policeman. Creation of New Security Monster Will Scarcely Lead to the Normalization of the Situation in the Country," *Nezavisimaya Gazeta Online*, 7 April 2016.

⁹ Yuliya Taratuta, interview with Aleksandr Khinshteyn, "Aleksandr Khinshteyn: The National Guard was not Created to Restrict the FSB," *Republic*, 18 November 2016.

¹⁰ Kira Latukhina, "Forming Up. Vladimir Putin Announces the Creation of a National Guard," *Rossiyskaya Gazeta Online*, 5 April 2016.

- reports that the reform is a response to the economic crisis in the country. One journalist wrote that only big business could be a threat to Putin, which are systemic forces that count on him. 12
- Many believe the NG acts as Putin's private army and provides for Putin's personal safety, since Putin does not fully trust a single security agency structure. The NG acts as a counterbalance to the FSB.¹³ He also fears former foreign partners, who he believes manage internal critics and encourage coups.¹⁴ He hopes to thwart any potential dramatic splits in elite structures.
- Putin is preparing in advance with the NG for the potential development of a revolutionary situation in Russia, one created by the crisis in Ukraine and the sanctions. He wants to prevent a possible "Maidan." He is also aware that there could be a major influx of ISIS fighters in the North Caucasus; thus, he needs the NG to fight any influx of fighters into Chechnya, 15 especially with his Armed Forces busy in Ukraine and Syria.
- Further, ethnic Chechens identify with Ramzan Kadyrov, Head of the Chechen Republic, and are loyal to him before anyone else. Their incorporation into the NG enables "an extensive and civilized purge." Troops are taken out of regional commands, thus out of Kadyrov's sphere of influence. They are directly subordinate to the NGs leader and director. 16

¹² Tatyana Stanovaya, "Revolution as Coup D'Etat: What Putin Really Fears," *Slon*, 5 May 2016.

¹¹ Stanovaya, "The President's Guard."

¹³ Mikhail Fishman, no title, *The Moscow Times Online* (in English), 6 April 2016.

¹⁴ Yevgeniya Albats and Ivan Davydov, "Paranoia," *The New Times Online*, 11 April 2016.

¹⁵ Dmitriy Gudkov, "Has Putin Begun to Fear Revolution More than Ever?" *Sobesednik Online*, 6 April 2016.

¹⁶ No author, "How Putin Closed Down Kadyrov's Army," *Novaya Gazeta Online*, 9 April 2016.

The most elite power units have been removed from Kadyrov's influence on the decision-making plane, and "there has been a truncation and demilitarization of the factor of the Chechen *siloviki* loyal to the Chechen leader." ¹⁷

- The logic of "security escalation" is worrisome to Putin, according to another source. The execution of Romanian President Ceausescu on 25 December 1989 was organized by two-star General Stanculescu, the same man who had carried out Ceausescu's order to shoot demonstrators just a week earlier.¹⁸
- Putin's NG is designed to allow both the NG and the FSB to fight terrorism, taking this task out of the FSB's hands totally, which had a monopoly on the mission earlier.¹⁹ He also focuses on the NG's ability to control the circulation of weapons in Russia.
- The NG is the authorities' guard against an internal enemy. The question is "against whom?" TV would have viewers believe the NG was set up for the population's benefit, not Putin's, since "under hypnosis [reference to Russian TV] the impossible is possible." The NG is an asymmetric response to smear campaigns, such as the Panama offshore funds, 20 which implicated a friend of Putin's.
- Those who protested the NG's development felt it would threaten the democratic process and turn Russia further into a police state. The NG would be called upon to quell protests in particular. The fear is that a

¹⁷ Yelena Milashina interview with Petr Zaikin, "How Putin Has Liquidated Kadyrov's Army. Edict on the Formation of the National Guard will have Colossal Consequences for Chechnya," *Novaya Gazeta Online*, 11 April 2016.

¹⁸ Kirill Rogov, "Security Escalation: Why Putin Needs His Own Army," *RBK Online*, 8 April 2016.

¹⁹ Ibid.

²⁰ Aleksandr Minkin, "Tsar's Troops: A Letter to the President," *MK Online*, 6 April 2016.

- "system of organized impunity" might develop around the NG.²¹
- In particular Putin hopes to use the NG as insurance against the development of a color revolution in Russia.

The NG will be responsible for domestic arms control and could take part in peacekeeping operations abroad.²² It would provide safety for the fuel and energy infrastructure and would have the right to suspend or limit in emergencies the use of any communication networks and means, while exercising priority rights to use them.²³ It is reported that the NG cannot use special means against pregnant women and people with disabilities unless they fight back or participate in an attack endangering other citizens' lives.²⁴

NG Weapons

There are various ways that the NG is authorized to handle potential threats to the regime. The law has authorized the NG to use weapons against demonstrators, but people should remember that all of these laws can be implemented in different ways. Whether the NG is really prepared to answer with bullets or just scaring people with these signals is unknown at this time.²⁵

Much of the authorized weaponry will be transferred from the Internal Troops, which includes various weapons that have been around for years. These items include rubber truncheons, tear gas, stun grenades, tools for smashing barriers, dogs, handcuffs, etc. Internal Troops also have their own airfields, aircraft, patrol helicopters, trained pilots, and

²¹ Viktor Khamrayev, "Other-Purpose Forces. Deputies Finish Work on National Guard Law," *Kommersant*, 22 June 2016.

²² No author or title provided, *Kommersant Online*, 11 April 2016.

²³ Interfax (in English), 12 April 2016.

²⁴ Interfax (in English), 6 April 2016.

²⁵ Vladislav Inozemtsev, "The End of the Current Regime will Come Only When They Have Shot Dead the First 10 Demonstrators," *Znak.com*, 22 September 2016.

unmanned equipment.²⁶ Water cannons and armored vehicles can be used if a prosecutor is notified within 24 hours after their use.²⁷ Interior Troops possess armored vehicles (Interior Troop website notes BTR-82A/82AM, BTR-70M, BRDM-2A, BMP-2, and the BTR-80 vehicles) and aircraft (International Institute of Strategic Studies notes Ilyushin Il-76, Antonov An-12, An-26, An-72, and 70 helicopters).²⁸ They also have a number of jeeps and other vehicles.

However, there has been a discussion over the past several months of the need for other weapons, to include the following:

- An eight-barreled nonlethal "flash-bang" stun grenade launcher, with a 200-meter range, which can also dispense nets to trap rioters. The Lafet universal launcher already exists, which can fire 50mm grenades.
- The Applied Chemistry Scientific Research Institute says an unmanned aerial vehicle that can deploy nonlethal weapons is under study.
- There are plans to acquire an acoustic nonlethal weapon for use in public order situations. The system will produce a "controlled behavioral reaction in rioters," with a range of not less than 60 meters and a capability of 4 hours of operation.²⁹
- The NG will get 120 Shmel rocket-propelled flamethrowers, reportedly of the antipersonnel type (this brand was called the Satan Pipe in Afghanistan). The Shmel's modification design for the NG is the RPO-A, which can be used when engaging covered weaponry in a city or for destroying shelters in

²⁶ Aleksandr Boyko, "Why Russia Needed a National Guard—All Police 'Military' Subdivisions Gathered Together to be Re-Armed and Used for their Designated Purpose," *Komsomolskaya Pravda Online*, 6 April 2016.

²⁷ Interfax (in English), 0924 GMT, 6 April 2016.

²⁸ *Interfax* (in English), 1656 GMT, 22 April 2016.

²⁹ Zvezda TV, 24 April 2016.

mountains. The RPO-A "wipes out everything living within a range of up to 80 cubic meters." In open terrain it covers 50 square meters and in an enclosed space up to 80 square meters. It has been called a "sniper flamethrower," since it can engage targets up to 700 meters away. 30

- The NG will get sound systems for dispersing demonstrations. It is planning to purchase the towed non-lethal acoustic impact system, which creates "certain behavioral responses" in disturbers of law and order. It uses infra-low frequency oscillation affecting the central nervous system. Its range is 60 meters and can operate up to four hours.³¹
- Primary service weapons will be the AK-74 and AK-74M. Special operation forces will be armed with AS 'Val' submachine guns for silent and flameless fire at ranges up to 400 meters. Small arms include pistols, assault rifles, machine guns, sniper rifles, nonlethal weapons, and weapons to fight submarine sabotage forces ³²
- Four tethered balloons will be acquired to surveil territory and record violations of the law. The PA-60 "Dozor" tethered balloon operates at 300-350 meters altitude, lifts up to 20 kilograms, and can loiter for up to 10 days and nights. The balloons are equipped with two video cameras and deliver both a panoramic image of terrain and a more detailed one.³³
- One source has noted that the NG will "get surplus military and special equipment, weapons,

³⁰ German Petelin and Artur Gromov, "The Guard is Being Ignited. The Russian Guard Could be Getting Shmel Flamethrowers," Gazeta.ru, 5 May 2016.

³¹ Ibid.

³² Interfax (in English), 11 May 2016.

³³ Dmitriy Grigoryev, "Rosgvardiya Will Purchase Four Aerostats from the Defense Industry Complex," Rossiyskaya Gazeta Online, 7 August 2016.

- ammunition free from the Defense Ministry."³⁴ This will also require that the state armaments programs be adjusted.³⁵
- The NG expects to get an unspecified number of the new BTR-82V armored vehicle in the second half of 2017. It represents a modernized version of the BTR-80, replacing the internal assemblies and running gear of the latter. The NG also expects to acquire the BTR-82AM model of the APC.³⁶
- Primary vehicle models of the NG include the UAZ, GAZ, URAL, and KAMAZ makes, while armored vehicles include the Tigr and URAL models. Special Forces units of the NG are outfitted with all-wheeldrive vehicles, while military units drive conventional and all-wheel-drive vehicles, depending on their missions.³⁷
- A source noted on 15 November that the NG will not need tanks, but will retain artillery.³⁸
- One Moscow report indicated that the NG will be armed with a ZEUS baton that possesses an LED flashlight, a laser sight, and the ability to fire electronic shocks up to five meters and stun grenades from a built in rail. The baton is tied to its owner via a special chip code such that if the baton is dropped, it will not work if someone else picks it up. The batons

³⁴ No author provided, "Russian National Guard Will Be Able to Obtain Weapons and Equipment from the Ministry of Defense," *RIA Novosti*, 18 August 2016.

³⁵ Interfax (in English), 4 May 2016.

³⁶ Unattributed report, "BTR-82V Designed for *Rosgvardiya* Will Enter Service in 2017," *RIA Novosti*, 15 November 2016.

³⁷ Unattributed report, "Russian National Guard to Get New BTR-82V Next Year," *RIA Novosti*, 13 September 2016.

³⁸ Unattributed report, "National Guard Troops Federal Service Does Not Intend to Obtain Heavy Armament, Other Than Artillery," *RIA Novosti*, 15 November 2016.

will be in use by those responsible for maintaining public order.³⁹

With regard to the nonlethal system designed to alter behavior, it forms very low frequency vibrations that influence the central nervous system. It would be used on disturbers of the peace or those with extremist tendencies. Infrasonic vibrations can be formed in the 4-8 GHz range, the frequency of vibrations of certain human organs. Already in the inventory should be the Shepot system, an acoustic unit embedded in the OMON (special purpose mobility unit) officer's shield, with a nonlethal effect on any biological target at a distance of 10 meters. The system was to have been delivered in August 2016.⁴⁰

The latest addition of a key piece of equipment with weapon overtones appears to be the so-called unhackable drone, designated as the ZALA 16E5. Reportedly these drones are protected against hostile takeover by enemy electronic warfare systems. The drone is designed by the ZALA AERO GROUP and, according to company spokesman Nikita Khamitov, will be delivered at the start of 2017. It was described as follows:

The...ZALA 16E5 is capable of carrying out aerial reconnaissance while remaining in the air for up to 16 hours consecutively and transmitting an image to the operator at a distance of up to 150 km. The flying drone's built-in equipment includes photographic and video cameras, night vision instruments, and a thermal imaging device.⁴¹

³⁹ Dmitriy Litovkin, "National Guard Troops Will Be Armed with Electric-Shock Batons. New Batons Contain Flashlights, Laser Pointers, and Can Throw Grenades," *Izvestiya Online*, 23 January 2017.

⁴⁰ Yelena Mukhametshina, "National Guard Purchases Sound Systems to Disperse Malefactors. On Eve of Elections, *Siloviki* Preparing for Protest Actions, Opposition Figures Claim," *Vedomosti Online*, 26 April 2016.

⁴¹ Unattributed report, "Federal Service of National Guard Troops to Receive Unhackable Drone. Latest Flying Drone Will Identify Attempt to Substitute its Control Signal and Return to Launch Position," *Izvestiya Online*, 3 November 2016.

Personnel Selections for the NG

Putin selected Colonel-General Viktor Zolotov, who worked in the KGB's Ninth Chief Directorate (which provided bodyguards for the country's leaders), to head the NG. The appointment carries with it the equivalent title of a federal minister. In the past Zolotov protected both Boris Yeltsin and Saint Petersburg Mayor Anatoliy Sobchak, which is where Putin first met Zolotov. Zolotov headed the president's security service from 2000 to 2013, and from 2013 until his NG appointment he served as the first deputy of the Interior Ministry.

Zolotov's duties include maintaining public order, fighting terrorism, taking part in the nation's territorial defense, guarding state facilities, and, along with the FSB, protecting the state border. Many, however, believe that Zolotov's first priority is to provide for Putin's personal safety and protection, since Putin does not trust a single security agency structure. Zolotov is a trusted friend who will help him resolve issues of social instability.⁴²

Zolotov will have six deputies. ⁴³ Zolotov's two first deputies are Sergey Melikov and Sergey Chenchik. Melikov is the first deputy and Chenchik heads the NG staff. Their transfer from their prior work in the North Caucasus to positions of importance indicates that North Caucasus threats remain paramount in Kremlin minds. Chenchik is a special case, in that journalists referred to him as the "godfather" of Caucasus special operations. ⁴⁴ His harsh methods are expected to remain in place to confront regional threats such as the return of Russian citizens from cooperating with ISIS in Syria. As one source noted, "If we are to believe the security agencies information, it appears that an increase in activity by groups sympathetic to Islamic State is taking place in the

⁴² Dmitriy Yevstifeyev and German Petelin, "National Guard for Putin's Bodyguard—Why Putin Needs a National Guard," *Gazeta.ru*, 5 April 2016.

⁴³ *Interfax* (in English), 6 April 2016.

⁴⁴ Arsen Malikov, "New National Guard Special Operations and Appointments Result from Intensive Bargaining between Melikov and Chenchik. Newly Created Militarized Structure to Make North Caucasus its Main Test Range," *On Kavkaz*, 12 October 2016.

North Caucasus." 45 Whether the number of threats is accurate or made up helps explain, in either case, why there have been increases in NG numbers in the area.

Zolotov noted that the instructor group in the Chechen Republic had created a regional Special Force Instructor group. The group was established on the orders of Ramzan Kadyrov, the republic's leader. The latter noted that he had awarded a number of high-ranking Russia military officials with awards, 46 which further solidifies his loyalty to Putin.

It appears that Putin was not intent on removing all Chechen security structures from Kadyrov's control, since Sharip Delimkhanov, Kadyrov's cousin, is now the chief of the Russian Guard Directorate for the Chechen Republic. Delimkhanov is the former commander of the "oil regiment," the unit that specialized in protecting facilities in the oil and gas sector. 47 He and other appointees to regional directorates of the National Guard change the correlation of forces among the security authorities, which had consisted of the FSB, MVD, and investigative department of the Investigation Committee (SU SK). The struggle among them for influence on NG regional directors will result in a new correlation of forces, dependent on the rivalry's outcome. 48 Russia now has multiple militarized agencies that must find ways to work together or wage a final battle for influence.

It was noted that, with the addition of internal troops and OMON and SOBR police Special Forces to the NG, spending under the heading

⁴⁵ Unattributed article, "Caucasus Experts Note Strengthening of Gunmen against Background of the Formation of the National Guard," Kavkazskiy Uzel, 12 October 2016.

⁴⁶ Instagram (in English), 1 August 2016.

⁴⁷ Andrey Kamakin, "Brother behind Brother: National Guard in Chechnya to be Commanded by a Relative of Kadyrov. Theory that Creation of New Security Structure was Kremlin Attempt to 'Disarm' Chechen Head Turns to Dust," Nezavisimaya Gazeta Online, 11 October 2016.

⁴⁸ Ibid.

of "Internal Troops" will nearly double to R206.6 billion in 2017.⁴⁹ In terms of personnel, Russian open data sources note that the Internal Troops number 170,000 service members; SOBR has 87 units and 5,200 personnel; and OMON has 160 units and 40,000 personnel. Additionally, a NG special task center appears to exist that includes a Zubr mobile special task unit of 421 personnel, a Rys special rapid reaction unit of 200 personnel, and a Yastreb special task aviation formation of 100 personnel.⁵⁰ Another report noted that the "Grom" special forces unit of the Federal Drug Control Service "will probably" become part of the NG, since no other special forces-type units will remain in the Interior Ministry.⁵¹

Putin has set the maximum number of NG staffers at 2,100 people, excluding security and service personnel at the buildings and including 1,615 military servicemen, 404 employees, and 81 federal civilian public-sector workers.⁵² In October it was noted that Zolotov will have seven deputies according to the law (the initial report in April stated he would have six) and be allowed to cooperate with defense and science facilities to create new equipment and weapons for the benefit of the service. There was also a task to "deal with information warfare" but no further details were provided. In all, the NG is responsible for some 100 types of power.⁵³ Zolotov will have one first deputy and the total number of personnel will exceed 340,000.⁵⁴ Of this number nearly 160,000 came from Interior Ministry divisions. A large number of people are needed in order to fulfill the many missions of the NG and to man the 84 federal bodies that were created and deployed to support the NG.⁵⁵

The NG's Organization and Duties

The NG includes the Internal Troops from the Ministry of Internal Affairs (MVD), OMON, special rapid-reaction detachment

⁴⁹ Moscow RosBiznesKonsalting (RBK), 23 October 2016.

⁵⁰ Interfax (in English), 22 April 2016.

⁵¹ Interfax (in English), 25 April 2016.

⁵² Interfax (in English), 20 September 2016.

⁵³ *Interfax* (in English), 4 October 2016.

⁵⁴ *Interfax* (in English), 1 August 2016.

⁵⁵ *Interfax* (in English), 25 November 2016.

(SOBR), the Federal State Unitary Enterprise Okhrana (FGUP), and other departments. Simultaneously with the establishment of the NG, the Federal Drug Control Service (FSKN) and Federal Migration Service (FMS) were abolished and their functions transferred to the Interior Ministry. Putin called the NG a "new federal executive power body." Of interest to planners is that the NG's intelligence services are analyzing the situation in Russia through the use of "preemptive forecasting" methods to determine dangerous processes, while NG intelligence specialists have "inherited the best traditions and adopted modern forms and methods of operation." Zolotov refers to the intelligence arm of the NG as the "military intelligence service." ⁵⁶

Structurally the NG will consist of a central complex of seven districts that correspond to the federal ones and territorial agencies within each federation component.⁵⁷ Its creation will take place in three stages. Initially, bodies and divisions will be transferred from the Interior Ministry to the guard. By August 2017, procedures and tasks will be finalized and regulations adjusted with federal legislation. By early 2018, a unified, coordinated structure will be complete.⁵⁸

In time of war, governors, local self-governments, cities of federal significance, and regional administrations of the MVD, MChS (Ministry of Emergency Situations), FSB, and NG will be subordinate to the Ministry of Defense's military district commanding officers. This new command and control system was inspected for the first time during the Kavkaz-2016 exercises (see more on the exercise in the section on "The National Defense Management Center" in Chapter Seven). It will ensure the maintenance of martial law regimes, mobilization efforts, and the defense of facilities from enemy sabotage and help prevent mass disorders. It was created based on a Putin edict of 18 November 2015. The Defense Ministry is charged with implementing all 19 measures specified in Article 7 of the Federal Constitutional Law "On Martial"

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⁵⁶ Interfax (in English), 3 November 2016.

⁵⁷ Svetlana Korzinkina, "The Structure of the National Guard Has Been Defined," *Izvestiya Online*, 6 September 2016.

⁵⁸ *Interfax* (in English), 1 August 2016.

Law," where previously the measures were divided among the militarized departments and local authorities. Each of the five military districts of the Defense Ministry is divided into two parts in wartime: an operational-strategic command (OSK) and a wartime military district (VOVO). The OSK conducts combat with regiments, divisions, brigades, and armies. The VOVO ensures martial law's maintenance and organizes mobilization and territorial defense.⁵⁹

It was noted in one article that the NG will NOT have its own investigative body, which the Interior Ministry and the FSB do have. 60 However, special powers will include detention, entry into residential and other premises, and cordoning off of areas, structures and other facilities. 61 Detentions can last up to three hours, and servicemen can also check citizen's identification cards and examine vehicles. Forces will be required to explain to anyone detained their rights to legal assistance and translation services, to notify family members of their detention, and to decline explanations. 62 The location of servicemen and their families, as well as the location or redeployment sites of NG bodies, units, forces, or garrisons will be prohibited in public statements and in the media. 63 In short, the NG will be somewhat comparable in strength to the Armed Forces, will be directly subordinate to the President, and will create another military structure which can use force against Russian citizens. 64 In this manner Putin can not only balance the influence of the FSB and the Defense Ministry but also offset some of the power of Ramzan Kadyrov in Chechnya with NG deployments there.

⁵⁹ Aleksey Ramm, "They will Subordinate the Governors, the FSB, and the Police to the Military in the Event of War: All of the Levers of Power will be Transferred to the Military District Commanding Officers in the Event of a Declaration of Martial Law," *Izvestiya Online*, 11 October 2016.

⁶⁰ Boyko.

⁶¹ Interfax (in English), 0844 GMT, 6 April 2016.

⁶² Interfax (in English), 0920 GMT, 6 April 2016.

⁶³ Interfax (in English), 1041 GMT, 6 April 2016.

⁶⁴ Ella Paneyakh, "Security Monster. How the Merger of the Ministry of Internal Affairs, Federal Narcotics Control Service, and Federal Migration Service will Affect Citizens," *Slon*, 7 April 2016.

Criminal investigations will have to be coordinated with the NG. Court bailiffs no longer have MVD support but must call the NG instead. Journalist Alexander Golts noted that the guard emerged due to regime paranoia of "color revolutions" and the desire to safeguard itself from such "threats." Putin subordinated the guard to himself. 65 Guard salaries will be on a par with those of the Defense Ministry. MVD servicemen will keep their privileges after joining the guard. 66 The guard will participate in the formation of the Russian State Defense Order through the preparation of proposals according to a decree on the troop's federal service. The power agency can combat terrorism and organized crime; support legal procedures during a state of emergency or during counterterrorism operations; provide state facility and special cargo security; assist the FSB in policing the state border; and monitor private security activities and the circulation of weapons.⁶⁷ Remediation efforts after an emergency is also a NG function.⁶⁸ There are also plans underway for the NG to protect the Kerch Bridge⁶⁹ and the Sevastopol research reactor. The NG is now in charge of protecting 72 state facilities and nearly 300 premises.⁷⁰

Aleksandr Khinshteyn, noted above, stated that the NG has a Directorate for Work with Personnel, which carries out some of the functions done by deputy commanders for political work in Soviet times. Propaganda and disinformation work will be aimed "at forming the right image of the agency." With regard to pay rates, it appears that those

⁶⁵ Aleksandr Golts, "Racketeering to Acquire a New Player—the National Guard. Military Expert is not Surprised at the Broadening of the NG's Powers and Describes the Structure as Just One More Player in the Racketeering Game," *Sobesednik Online*, 5 August 2016.

⁶⁶ Interfax (in English), 23 August 2016.

⁶⁷ Unattributed report, "The National Guard will Participate in Forming the Russian State Defense Order," *RIA Novosti*, 4 October 2016.

⁶⁸ Sergey Operov and Ivan Safronov, "Ministry of Emergency Powers. A Reform of the Law-Enforcement and Security Bodies is in Preparation," *Kommersant Online*, 19 September 2016.

⁶⁹ *Interfax* (in English), 1055 GMT, 20 September 2016.

⁷⁰ *Interfax* (in English), 1121 GMT, 20 September 2016.

⁷¹ Valeriya Markova, "Commenting on His Appointment as Adviser to *Rosgvardiya* Head, Khinshteyn Spoke about NKVD's Heroism," *MK Online*, 25 October 2016.

NG members under contract will receive ten times the pay per month in comparison to those who were drafted into the force. Zolotov will receive 54,000 rubles a month, contracted riflemen 10,000 rubles a month, and ranking contracted non-commissioned officer (NCO) 18,000 rubles a month. Drafted riflemen and NCOs will receive 1,000 rubles a month and 1,800 rubles a month, respectively.⁷²

With regard to duties, an April 2016 report noted that the NG will conduct both planned and unplanned checks on Russia's fuel and energy companies. Planned checks within the high- and medium-hazard category are conducted once a year and in the low-hazard category every three years. The NG conducts unplanned checks at the president's or government's requests.⁷³

In addition, some expect that increased competition among security forces will affect how the business community conducts itself. The NG may become the protector of this racket game and "will seek protection money that businesses currently pay to other security forces." State facilities that require protection include nuclear power stations, top secret defense plants, and ports hosting nuclear ice breakers, among others. As a final note, it was stated that both contract personnel and draftees will serve in the NG. The force will be located in Strogino, to the west of Moscow, where the base will serve as a full-fledged town. The publication of this information contradicts earlier announcements that divulging the location of servicemen would be prohibited.

A more detailed list of the duties of the NG were described in a 4 July 2016 report. Putin had signed a law on NG forces that listed the various duties of the NG as follows:

⁷² Ivan Petrov, "How Much You Can Earn. National Guard Determines Rates of Pay for Draftees and Contract Service Personnel," *Rossiyskaya Gazeta Online*, 21 August 2016.

⁷³ *Interfax* (in English), 24 October 2016.

⁷⁴ Nikolai Petrov, no title, *The Moscow Times Online* (in English), 15 April 2016.

⁷⁵ Mikhail Falaleyev, "Everything Legal. *Rossiyskaya Gazeta* Publishes Law 'On the Russian Federation National Guard Troops," *Rossiyskaya Gazeta Online*, 6 July 2016.

⁷⁶ No author or title provided, *The Moscow Times Online* (in English), 13 July 2016.

- Enforce the emergency situation regime
- Fight terrorism
- Ensure territorial defense
- Protect special state facilities and special purpose sites
- Address the tasks regarding control over the turnover of weapons
- Address the operation of private security agencies
- Protect public order along with the Interior Ministry
- Protect the state borders with the FSB
- Escort special cargoes
- Help secure Russia's territorial integrity
- Suppress mass disorder in the penitentiaries and populated areas
- Have the right to unlock cars to save lives, ensure their security, or detain people involved in criminal actions
- Use physical force, special means or firearms in the event of immediate threats
- Fulfill legal demands and issue warnings
- Apply special equipment to suppress riots or other illegal actions
- Break into residences if necessary
- Check documents and detain suspects for no more than three hours 77

An October report noted the following tasks/duties for the NG: registering every citizen's fingerprints in a national database; developing safety measures for civilian aviation; evaluating the defensive capabilities of buildings and other facilities against terrorist attacks; forming a network of regional structures to operate alongside military defense projects and in time of war; providing public order and territorial

⁷⁷ *Interfax* (in English), 4 July 2016.

defense; and suppressing potential opposition protest actions).⁷⁸ The guard may also fulfill peacekeeping duties abroad.⁷⁹

Another duty, external to Russia, would be the use of the NG as a peacekeeping force. It could be utilized in Central Asia if Russian political, economic, infrastructure, or cultural issues require enforcement support. Conflicts in Central Asia could easily spread inside Russia if not carefully monitored. It was noted that the "legislative configuration that has been created has carefully eliminated all obstacles to the employment of NG troops in combatting disturbances in Central Asia." Two units most likely to be employed there are the above-mentioned Zubr and Rys units. Before they were incorporated into the NG, they were part of the Collective Rapid Reaction Force of the Collective Security Treaty Organization and thus have had experience in Central Asia before their move to the NG.⁸¹

Reports indicate that the NG took part in more than 160 antiterrorism operations in conjunction with other services in 2016. It also helped protect 15 global and state events. Russia conducted several NG exercises in 2016, one of which was with China in July 2016 on the premises of the Dzerzhinsky Division outside Moscow. Live-fire, airdrop, and high-altitude training was conducted. Searches were made for subversive and bandit groups in a forest and in a populated area, mines were cleared, the "injured" were evacuated, a city was cordoned off, and a landing was made on a roof-top by an assault group. There also have been joint exercises among the NG (and its Mi-8 helicopters), the Airborne Troops, and the Internal Affairs Ministry troops. Such

⁷⁸ The Moscow Times Online (in English), 4 October 2016.

⁷⁹ RT Online (in English), 2 August 2016.

⁸⁰ Konstantin Bogdanov, "The Wild Field of Threats. What Russia's National Guard May Be Up Against," *Lenta.ru*, 11 May 2016.

⁸¹ Interfax (in English), 1 August 2016.

⁸² Interfax (in English), 25 November 2016.

⁸³ Interfax (in English), 4 July 2016.

exercises allow for the strengthening of interaction among the federal, regional, and asset groupings. 84

There do seem to be worries creeping into the population and the press. When the NG was first announced in April 2016, a report discussed an exercise scenario involving the NG that had it confronting an angry mob of citizens who were upset with increases in municipal service charges (heating, light, and water). The article noted that to bring folks to their senses, it appears that nightsticks, tear gas, and barbed wire will be the answer. Russian authorities are turning to Zubatovism, a system of workers' organizations named for Sergey Zubatov, a czarist colonel of the gendarmes whose aim was to monitor workers and divert them from political activity under such conditions. Khinshteyn, however, downplayed the anxiety that the April report implied. He noted in his November interview that the law does not allow the NG to use weapons in crowded places, unless there is an operational need to free hostages, repel a group attack on important facilities, or stop terrorist acts. 86

However, in December 2016 Riga's press quoted Alexander Maul, the head of the NG's directorate for the Altai Region, as saying that it was the "fifth column" (small groups that try to undermine a larger population from within) that needed to be watched by the guard, to include a few public organizations funded from abroad. This prompted a retort from Moscow that the main task of the NG was to combat terrorism and protect the rights and freedoms of citizens. While the comment directly refuted the allegation that the NG was created to fight "revolutionary agitators," it was clear that the guard may have other "main tasks" that are unspoken.

⁸⁴ Yuriy Borodin, "The First Pancake is Not Lumpy," *Ministry of Defense of the Russian Federation*, 29 September 2016.

⁸⁵ Aleksandr Golts, "To Rout and Not to Allow," *Yezhednevnyy Zhurnal*, 25 April 2016.

⁸⁶ Yuliya Taratuta, "Aleksandr Khinshteyn: The National Guard was not Created..."

⁸⁷ BBC Monitoring, Riga Meduza, 16 December 2016.

⁸⁸ Interfax (in English), 0700 GMT, 19 December 2016.

Another report noted that, according to the First Deputy Commander of the NG, Sergey Melikov, the intelligence arm of the NG will detect threats to the political system in Russia and the security of its citizens. ⁸⁹ He added that the role of the guard is to ensure public order "without regard for the revolutionary mood of the people or the fifth column, or the sixth or seventh or eighth." ⁹⁰

Another worry centers on rumors that several of Russia's security bodies will be merged into a single powerful agency, which would include the Federal Security Service, the Foreign Intelligence Service, and the Federal Protection Service. The agency would handle external threats to Russia, while the NG would handle internal threats to security and order. Again, however, Khinshteyn stated categorically that this will not happen, and that such a security body is not planned.

The formation of the NG, it appears, is well on its way. Tasks for 2017 include carrying out the second stage of the NG's creation, ensuring public order at the FIFA Confederations Cup, improving the effectiveness of the fight against corruption and crime, and neutralizing terrorists and extremists who threaten Russia. ⁹² In late November Zolotov issued an order to establish a board to examine NG activities and troop service developments. The board is an advisory body that consists of sixteen people, to include Zolotov, deputy directors, the chief of the Main Organizational Directorate, and troop district commanders. The latter will be in charge of military councils of the NG's operational-territorial combined formations, which will be set up in the districts. ⁹³

Conclusions

This chapter began with a quote from George Kennan in 1946 that described a Soviet thought process heavily influenced by an

⁸⁹ Interfax (in English), 1152 GMT, 19 December 2016.

⁹⁰ Interfax-AVN Online, 0940 GMT, 19 December 2016.

⁹¹ BBC Monitoring (in English), 20 September 2016.

⁹² Interfax-AVN Online, 25 November 2016.

⁹³ Unattributed report, "National Guard Forms Board to Consider Questions of the Service's Development," *RIA Novosti*, 28 November 2016.

authoritarian sense of insecurity. The creation of a huge NG to maintain internal and social stability in Russia appears to support Kennan's statement some 70 years after it was made.

Even official Russian sources note that the NG was created to ensure domestic stability, and that the Guard's reach could have international implications as well. It can serve as a deterrent or strike force, depending on the situation and may have a peacekeeping role. Further, the inventory of new weapons continues to grow.

CHAPTER TWO: CADRE CHANGES AND SISTEMA

Introduction

An examination of President Vladimir Putin's cadre changes over the past few years appear to be based on his belief that new centers of power, whether it be in politics or business, might appear. From the reign of Vladimir Lenin through that of Leonid Brezhnev, there were few changes in the Soviet Union's decision-making's methodology and purpose. The Politburo was a fairly fixed establishment and only through the aging process were changes made in its membership. The Communist Party was the only player in politics, there were few competing "businesses" under communism, and decision-making itself lacked transparency. And then the Soviet Union dissolved.

Today, however, thanks to insights provided by numerous authors and analysts, Putin's decision-making capabilities insecurities are becoming somewhat less opaque. While analysts will never be able to ascertain his next move with conviction, they can at least offer plausible scenarios that he might follow based on such knowledge.

This chapter looks at Putin's cadre changes that involve the movement of reliable characters in a sort of political carousel to prevent the development of a strong opposition to his policies. The chapter ends with a discussion of the concept of sistema, which former Russian insider Gleb Pavlovsky defines as "a style of exercising power that turns the country's people into temporary operating resources, against their wills and in breach of their rights."94

Putin's Cadre Changes

In 2016 governors, ministers, and key members of the presidential staff were replaced and new security structures appeared. These changes, when taken in perspective, appear aimed at strengthening

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⁹⁴ Gleb Pavlovsky, "Russian Politics under Putin," Foreign Affairs, May/June 2016, p. 14.

Putin's control over the decisions regarding the country's laws and responses to threats, both real and imagined. His press secretary noted that this was just an effort to improve the state administration's effectiveness, while for others it demonstrated that the "weakening of the Presidential Staff as a decision-making center is now obviously under way." The FSB is somewhat stronger. However, this does not mean that competing centers of interest have disappeared. For example, one writer thought that the State Duma may become the new "power center" of Russian politics. 95

One of the more intriguing decisions that Putin made in 2016 was to move out of key positions several longtime friends who had always been some of his biggest supporters. There are several considerations as to "why" Putin was motivated to make changes in the various staffs, business clans, and security forces that surround him. First and foremost is the growing age of these contingents. Younger blood may be needed to infuse the system with updated thought that is more appropriate for the digital age. Members of Putin's old entourage had little external leverage; thus, it was difficult to do business with the West. Putin is a survivor and sees that this informal network of longtime friends was going stale, especially in light of the sanctions resulting from decisions he had made over the past two years in regard to Crimea, Ukraine, Syria, and attempts to influence the US electoral process. Further, over the course of a decade, Putin's long-time friends naturally made new friendships and developed trust among themselves.

This leads to a second consideration, which is that Putin did not want to be held hostage by any one of these groups. Putin does not want anyone to control him or force him into decisions that were put together by several individuals. As one commentator noted, intra-elite rivalry is intensifying with the upcoming presidential election and with it, the "inevitable subsequent 'distribution of prizes,' including posts in the

⁹⁵ Editorial, "Volodin's Duma: Will a New Political Course Ensue Following the New Reshuffles in the Regime," *Gazeta.ru*, 23 September 2016.

government and the leadership of major corporations."⁹⁶ Finally Putin aims to continue to exert control over all of these groups. He has to keep balancing these forces while on the lookout for new loyalists worth keeping. He is currently experimenting with the placement of young technocrats (who owe their careers to Putin) or children of the ruling elite (the latter holding state posts) to key positions, testing them against the experience of his older supporters. This is not a final version of events, but it is certainly a serious trial run that could overturn the position of people who have been in key positions for years. Several of these changes are described in the discussion below.

In this vein, it is most intriguing to speculate "how" Putin might contemplate changes to his retinue, with speculation being the key word here. What is offered for consideration below is a speculative thought process that approximates the military's five step method for uncovering and addressing changes in the character of conflict. The template covers key areas that offer a way to talk about Putin's cadre changes. The methodology is different from the only authoritative voice on the topic, which is that of Gleb Pavlovsky, who worked in the Putin administration in the past and whose discussion of the concept known as *sistema* is offered in a section below.

The first step of the template is not the changing character of war but rather the changing character of politics (age, diversifying bases of support, neutering ambitions, and so on). Second, Putin and his advisors must forecast what future political climate and support he finds most important (which groups to interact with that do not present a threat). Third he must align or balance forces to keep everyone happy and to prevent one group from becoming too strong, much like a correlation of forces assessment. Fourth, he must assess the type of organization (form) to pursue, such as growing a new elite (or as one Russian commentator acknowledges, deal with an evolving Politburo 2.0). Finally, he must prepare the proper weapons (methods) of blackmail, innuendo, propaganda, active measures, and hacking with which to attack

⁹⁶ Natalya Korchenkova and Yekaterian Grobman, "The New 'Politburo.' Experts Sketch out Vladimir Putin's Inner Circle," *Kommersant Online*, 7 November 2016.

opponents at home and abroad; and he must utilize political art (methods, military art), as exhibited in the various styles he uses to combat opponents.

Of interest is that this method of examining Russian politics using a military method offers a different way to categorize political warfare in Russia. This is a modern "Game of Thrones" that is full of the same intrigue and machinations. Below are some of the statements by Russian journalists that fit the template.

- Changing character of politics—"The main motive is the objective process of the ageing of the former 'Putin elite,' which has already reached the 60+ age threshold."⁹⁷ "The 'dilution' of natives of Saint Petersburg in power began during Vladimir Putin's second presidential term. At that moment in time, he began to actively diversify the regional base of his support," political strategist Yevgeniy Minchenko says. "The old elite has a large catalogue of ambitions and grievances, whereas the 'technocrats' are only just beginning to forge their careers and understand perfectly well that they are obliged to the president personally for their elevation."⁹⁹
- Forecasting—"In the future, the political influence of the elite groups whose interaction Putin has been moderating for 16 years already will be reduced," Minchenko believes. 100 The forecasting process appears to be seriously affected by the Russian penchant to envision conspiracy theories everywhere

⁹⁷ Arnold Khachaturov, "End of the Era of the 'Saint Petersburgers.' In Russia, It is Not the Voters, but the President Who Once Recruited Them Who is Bidding Farewell to People Who Have Become Tiresome," *Novaya Gazeta Online*, 23 December 2016. ⁹⁸ Ibid.

⁹⁹ Ibid.

¹⁰⁰ Ibid.

the leadership looks. This not only affects forecasting via inbuilt prejudices but also enhances the use of political weaponry against presumed opponents.

- Correlation of forces—"The mass importation of executive cadres from Saint Petersburg that took place during Vladimir Putin's first presidential term determined the configuration of forces in Russian politics for years ahead." "In order to retain power in his own hands, an authoritarian leader needs to continually change the balance of power between the elite groups; otherwise, one of them could become too strongly entrenched." This includes Putin's circle of politicians, functionaries, and businessmen who participate in the adoption of major decisions. ¹⁰³
- Organizations—"A regrouping of forces has begun in the upper and middle echelons of the Russian nomenklatura." 104 Vladimir Putin is "testing people originating from various strata."105 The current "politburo" membership includes Defense Minister Sergey Shoygu; Rosneft boss Igor Sechin; State Duma Speaker Vyacheslav Volodin; Rostech Corporation boss Sergey Chemezov; Rossiva Bank Yuriv Kovalchuk: businessman Arkadiv boss Rotenberg; Premier Dmitriy Medvedev; and Moscow Mayor Sergey Sobyanin. 106 "All of them nonpoliticized cadres without clan interests who are

¹⁰¹ Ibid.

¹⁰² Ibid.

¹⁰³ Editorial, "Putin's Game of Styles. Experience, High Poll Numbers, and Control over the *Siloviki* Allow the President to Complete any Steps, Even Liberal Ones," *Nezavisimaya Gazeta Online*, 8 November 2016.

¹⁰⁴ Korchenkova and Grobman.

¹⁰⁵ Ibid.

¹⁰⁶ Ibid.

functional and effective and know their business." ¹⁰⁷ "Maintaining the old elites, who are noticeably losing their effectiveness, is becoming too expensive. On the Russian political spectrum, the 'technocrat' is not so far away from the 'establishment liberal." ¹⁰⁸ "This new generation of central bureaucracy represents a 'new Putin draft." ¹⁰⁹ "Putin is growing a new elite and testing these people, who by no means constitute technocrats alone," Minchenko concludes. ¹¹⁰ The main organization that Mincheko has discussed is known as "Politburo 2.0." Putin believes it has become too influential and thus must be reformatted. ¹¹¹

- Weapons—political influence via propaganda, blackmail, innuendo, jailing, trumped up charges, active measures, and hacking
- Political art—"The President is the master of various styles, that he can play with them, and change depending on the situation, without allowing anyone of the groups to become stronger and while maintaining control over them. At the same time he always has the personnel at the ready to embody any style in practice." This is a "game inside the elite aimed at preserving a balance between the various forces and at ensuring their obedience or resubmission to the national leader." Various styles have included a moderate reformist mode, a left-wing populist mode, and the patriotic mode. 114 The editorial notes.

¹⁰⁷ Khachaturov

¹⁰⁸ Ibid.

¹⁰⁹ Ibid.

¹¹⁰ Ibid

¹¹¹ Editorial, "Putin's Game...".

¹¹² Ibid.

¹¹³ Ibid.

¹¹⁴ Ibid.

however, that for real liberalization, conditions are needed that do not exist at the present moment in time. 115

This five-step template, which is speculative only, does offer analysts searching for a way to examine Putin's cadre changes a specific methodology for understanding political change.

It should be noted that perhaps the most prominent voice, mentioned above, in Russia in regard to "groupings" of elites has been Yevgeniy Minchenko, whose Minchenko Consulting company has been preparing "Politburo 2.0" reports about all of the elites in Russia and with whom they are aligned. It is not known just how authoritative his reporting is, but it is definitely of interest as a model for consideration.

Minchenko defines a politburo member as one who possesses all types of resources, to include financial, security-related, and regional resources. He believes that there is tension between politburo members working in the Kremlin and those working in the White House, or legislative branch. This includes political tension over the promotion of specific draft laws. 117

Russian sources explained the cadre change discussion that started in the spring of 2016 in an entirely different way, with no mention or reference, of course, to the five-step template. There were three areas where change seemed to be occurring. A report in May noted that at the time Russian politics included several dozen individual players with their own clienteles. They only entered into agreements with one another to achieve specific objectives, with Putin as their arbiter. Another group was people moving into key jobs from the Presidential Security Service, people whom Putin has come to trust. A final group involved the gradual introduction of generational change into

116 Ibid.

¹¹⁵ Ibid.

¹¹⁷ Ibid.

the top echelons.¹¹⁸ The discussion that followed in June, July, and August involved much speculation.

In June 2016 Gleb Pavlovsky, who wrote the excellent discussion of *Sistema* that is highlighted in the next section, noted that there was a de-politicization process underway in Russia where decisions and authority were now in the hands of a single leader. Policies are hidden from the populace due to a monopoly over the political agenda. This, in turn, "darkens the national leaders' thinking and prompts them to have dangerous reveries and grim fantasies." The authorities are averse to change but, if Putin's ratings fall, everyone will have to deal with the unintended consequences of such an event.

Between 28 and 29 July 2016, the discussion over personnel changes appeared to reach its apex. One 28 July 2016 report noted that in a single day Putin had replaced several governors, regional representatives, and one ambassador (Russia's ambassador to Ukraine). Presidential Press Secretary Dmitry Peskov stated that the reshuffle aims to improve the effectiveness of state administration, and that the changes were not directly related to the September Duma elections. 120

A second 28 July 2016 article noted that the rotation of personnel was long-expected, and it could be designed to "defuse intra-elite conflict that had come to a head." Analysts believed that if the newly designated authorities could generate a desire for renewal, opposition demands could then be somewhat neutered. Thus, the idea behind the movement of personnel at the time was to defuse the amount of protest before the elections for the State Duma in September. Putin, the article notes, changed governors in regions where the protest sentiments were strongest. Complaints cannot be made against new people. Some of the

¹¹⁸ Aleksey Makarkin, "Murov's Resignation is a Serious Political Success for Viktor Zolotov, Who at One Time Was His Ally," *Politkom.ru*, 26 May 2016.

¹¹⁹ Gleb Pavlovsky, no title offered, *The Moscow Times Online* (in English), 3 June 2026.

¹²⁰ RT Online (in English), 28 July 2016.

¹²¹ Yekaterina Vinokurova, "New 'Putinian Draft.' Experts: Filling the 'Vertical' with *Siloviki* Will Facilitate their Demystification," *Znak.com*, 28 July 2016.

appointments went to people in shoulder boards instead of suits, which is yet another way to indicate the type of control and discipline that Putin desires. However, this move may backfire, as people may soon see that iron hands cannot handle difficult problems. 122

A third article on 28 July, an editorial, offered yet another perspective on the changes. It noted that the reshuffling appeared to be a special operation and not a rotation, as the majority of the new appointees were people in uniform. In hindsight, however, there appeared to be some rational logic behind the changes, as all four governors who lost their jobs had troubles of some type. In three of the four regions people from Putin's personal bodyguard were installed. In this way, Putin is building a new internal vertical axis of power to purge threats of a coup. Putin may be worrying about handing over power in either 2018 or 2024. He believes, it seems, "dependable and loyal people from the close entourage on whom one can rely would be needed not only in Moscow but also throughout the country," according to this editorial. 123 There has since been a rumor, offered by Valery Solovey, that Putin may be "absent from the public space for several months in 2017 or else appear only extremely rarely."124 Solovey has managed some credible reporting from behind the Kremlin walls in the past.

In a final 28 July article, the authors discussed the use of the *siloviki* to replace current appointees. This indicates that the group in favor at the moment is clearly the power ministries, particularly the Federal Protection Service and the FSB. Finally, some of those removed were placed in positions as presidential plenipotentiary representatives. This indicates they could be in places of rest at the moment and could be summoned back to the fray at any time. ¹²⁵

¹²² Ibid.

¹²³ No author, "The Law, Uniforms, and Order. What Lies behind the Biggest Personnel Reshuffle of Recent Years?" *Gazeta.ru*, 28 July 2016.

¹²⁴ Andrey Kamakin, interview with Valery Solovey, "Storm in 2017: Putin May Be Replaced by Successor in a Few Months' Time," *MK Online*, 11 November 2016.

¹²⁵ Kirill Martynov, Nataliya Zotova, and Dmitriy Rebrov, "Day of Reshuffles. What do Dismissals and Movements in Regional Elites on Eve of Elections Mean," *Novaya Gazeta Online*, 28 July 2016.

On 29 July, a report noted the speed with which the cadre changes were made: "at intervals of 5-10 minutes a succession of 15 edicts were published" that resulted in the replacement of three plenipotentiary representatives in the federal districts, four governors, and one Federal Customs Service leader. At the same time the NG acquired a second first deputy leader and Russia's ambassador to Kiev was relieved of duty at his own request. Three of the four gubernatorial vacancies were filled by special services personnel.

Putin only appear to trusts the loyalty of those closest to him, such as members of the security services. He gains two advantages from utilizing them in the regions: the population notes that he is aware of their problems and is taking care of them with people he trusts; and the elites sense that Putin will not put up with those who do not perform. Putting security service personnel in these jobs indicates that he wants only professionals and those he credits as being trustworthy to run the region. The population feels it is getting good leadership. These moves also steal the opposition's agenda if they are running on corruption charges against the incumbent. 127 Once they are removed, the opposition has no time to record wrongdoings by their replacements. In effect Putin is sending loyalty (in the form of his security service or praetorian guards) to the regions as much as forward-thinking officials. This strengthens his vertical hierarchy with members of the siloviki. Clearly these decisions were made in advance, as witnessed by the 15-minute release of the edicts. Perhaps this is even being done in preparation for the presidential elections of 2018. 128

In another 29 July article, the argument was presented that a complex equilibrium has been created among cadres. Each department and directorate is moving forward based on its own endeavors. The FSB

Dmitriy Kamyshev, Petr Kozlov, and Yelena Mukhametshina, "Fall Reshuffle Could Follow Summer Personnel Reshuffle; Functionaries and Experts Expect Next Wave of Dismissals and Appointments after Duma Elections," *Vedomosti Online*, 29 July 2016.
 Ibid.

¹²⁸ Darya Garmonenko and Velimir Razuvayev, "Putin Continues to Stake on the *Siloviki*. Kremlin's Cadre Deck Still Mainly Contains Chekists and Generals," *Nezavisimaya Gazeta Online*, 29 July 2016.

and the Personal Security Service appear to be the leading power executioners at the moment. There must not be a final victor, the article noted, but rather the maintenance of an unstable balance among key actors. This balance is maintained in many ways. In the recently formed NG, for example, its chief is a member of only the larger, not smaller, Security Council. Simultaneously the FSB was reformatted and strengthened to combat corruption and security in the economic sphere. The overall effect on the *siloviki* is that they are, to a degree, afraid of one another's powers, which is a form of checks and balances based on fear. The system continues to operate as long as competition is preserved and there is no winner. A victor, according to the rationale of those who are insecure in their position, may decide to form an opposition or create conditions for a coup, so Putin will keep a close eye on competitors. ¹²⁹

In August 2016 Putin made some significant personnel changes that, in effect, removed several heavyweights from important jobs, but, in a roundabout way, still kept them in his inner circle. Much of the movement was cosmetic, and when viewed more deeply reflects a way to gain better control over matters of state and decision-making. The removal of Sergey Ivanov and appointment of his deputy, Anton Vayno, as head of the presidential staff may be the most significant. Initial thoughts were that Ivanov had fallen out of favor with Putin, but this was not the case. Rather, his move to another job was planned long ago between just Putin and him. Ivanov is now an envoy on environmental and transport issues. Some felt perhaps Putin was shielding figures of importance such as Ivanov from the difficulties of dealing with sanctions and offering them a freer path to the Presidency in case Putin decides (highly unlikely) against extending his presidency in 2018. Ivanov, however, noted that he is still a permanent member of the Security Council and talks with Putin at least once a week. He is still the Chairman of the Board of Directors at *Rostelecom* as well, so these ideas appear to have little weight.

¹²⁹ Yekaterina Shulman, "Why the 'War of the *Siloviki*' is Not What We Think It Is," *Slon*, 29 July 2016.

Vyacheslav Volodin was moved from the position of presidential staff first deputy to speaker of the State Duma. This ensures better control over the Duma. Both Volodin and Vayno are Putin insiders who owe their careers to him. Volodin's move may mean the transfer of domestic policy influence from the Kremlin administration to the lower chamber. It will be easier to adopt constitutional amendments or laws that require two-thirds of the deputies' consent. 130

Volodin is replacing Sergey Naryshkin, another Putin insider, who is moving to head Russia's Foreign Intelligence Service. Sergey Kiriyenko, head of Rosatom, is replacing Volodin. A former prime minister of Russia in 1998, he will apparently oversee domestic politics. It thus remains to be seen whether a dual-domestic center is being developed or whether Volodin will remain in charge and Kiriyenko will merely be a figurehead. Many expect the office to be just symbolic. Meanwhile the security services continue to project their influence over the rest of the nation in this time of intense sanctions.

There are rumors that the presidential election could be moved up from 2018 to 2017, which means that the preparation of loyal cadres for such an event may also be moved up, which would also account for the changes thus far. Further, there is a tendency within administrations such as Putin's to establish competing hierarchies who offer different types of personal relationships and devoted loyalty. Contrasting a new cadre against the established security forces of Putin's background is one such competition; another would be Putin's relationship to his friends from his days in Saint Petersburg. He is putting trusted friends into all three of these relationships, thereby solidifying his hierarchy of power from multiple angles.

Such changes reflect Putin's ability to increase control over what he foresees as required of his staff and ministers in the coming years. Some believe the age of some of his older comrades comes into question as well, but this does not seem to be the most serious cause for change. Rather, the change more likely reflects the ability to establish the

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¹³⁰ Editorial.

security services everywhere and have forces ready to stunt protests while encouraging compliance. The latter is particularly important in this age of uncertainty for Russia, strapped as it is with the extended effect of sanctions on the domestic economy.

Sistema: The Unique Russian Operating Environment

Until April 2011 Gleb Pavlovsky served as an advisor to the Presidential Administration of Russia. Based on his wealth of background information, he wrote a fascinating article published in the May/June issue of *Foreign Affairs* that described how decisions are made in the Kremlin and the infrastructure that supports such methods. This decision-making and management procedure, known as *sistema*, has long defined Russian politics and society and will outlive Putin, in Pavlovsky's opinion. Pavlovsky's comments came before the late summer 2016 Putin purge of several leading political figures.

First, what is *sistema*? Pavlovsky defines the term as "a style of exercising power that turns the country's people into temporary operating resources, against their wills and in breach of their rights." Alena Ledeneva, in her 2013 book *Can Russia Modernize*?, defined the term a bit differently: "the paradoxical ways in which things get done in practice—adhering to official rules and formal procedures but also following unwritten codes and practical norms." She adds that the term applies to contemporary Russian governance.

Pavlovsky states that the term has become a method for making deals and goes beyond politics and ideology, combining the idea

that the state should enjoy unlimited access to all national resources, public or private, with a kind of permanent state of emergency in which every level of society—businesses, social and ethnic groups, powerful clans, and

¹³¹ Gleb Pavlovsky, "Russian Politics under Putin," *Foreign Affairs*, May/June 2016, pp. 10-17.

¹³² Ibid., p. 14.

¹³³ Ibid.

even criminal gangs—is drafted into solving what the Kremlin labels 'urgent state problems.' 134

Unlimited access to all resources certainly implies extensive control.

Second, what are the characteristics of *sistema*? Pavlovsky writes that *sistema* "relies on indirection and interpretation rather than command and control." The approval system is at once indecisive and vague. A proposal takes the form of *otmashka*, which means "go-ahead" in the sense not so much as an order but rather as a license "to act in a desired direction." The term is applied to projects deemed *priemlemo* (acceptable), offering a sense of indifference to details. As a result "That is why today, significant actions on Russia's part rarely stem from Kremlin directives but rather result from a sort of contest among Kremlin-related groups each seeking to prove its loyalty." Perhaps this is why in February 2015 Boris Nemtsov was gunned down in cold blood, with one group (Chechens) reaching out to demonstrate its "loyalty" to Putin.

One constant group that supports *sistema* is a ruling team that protects its grip on power. As an example, Pavlovsky noted how gubernatorial elections work. Putin approves a candidate, following internal negotiations within the Kremlin. There is deal making among cabinet members, local businesses, and alternate candidates. Anointed candidate's form campaign headquarters. Local businesses then compete and express loyalty to the candidate (as motivation, the former are threatened with losing what they have). Another characteristic is that when problems (falling prices, etc.) arise new "urgent state problems" are found. This is because *sistema* has no retreat mode, and governing is about contending with the existence of norms and circumventing

¹³⁴ Ibid.

¹³⁵ Ibid., pp. 11-12.

¹³⁶ Ibid., p. 12.

¹³⁷ Ibid., p. 15.

them, ¹³⁸ often with the creation of new realities (which are often contrived).

Third, besides Putin and his staff, who are the players in *sistema*? Pavlovsky writes that the team that put Putin into the Kremlin is still governing Russia with only minor adjustments. According to Pavlovsky, they have never told Putin "you can't do that" and he does not consult them for strategic advice. At meetings Putin asks questions, they provide answers and there is no discussion. ¹³⁹ Putin has conducted two purges, however, of staff workers. The first occurred after he retook the presidency from Dmitry Medvedev in 2012, and the second occurred at the end of September 2016.

Pavlovsky writes that very important players in Putin's *sistema* are "curators," semiofficial figures "through whom state governance flows." Curators are project managers and political bureaucrats who operate through personal agents under the authorization of the Kremlin. Most importantly, perhaps, is that the curator "is not responsible for his agents' actions" and agents can be punished nearly at will. Curators are easier to set loose than to rein in, 141 as lower level curators try to "outdo one another in their demonstrations of loyalty to Putin, with increasingly worrying results." Curators serve as buffer zones from their agents' actions and the Kremlin's directives.

And what about Putin? Pavlovsky states that Putin and his staff are competent, especially Vladislav Surkov and his political strategy skills. Putin himself, due to his penchant for gambling and hypocritical nature, has encouraged, whether intentional or not, that the Russian state is his property. His decision-making appears rational and absent of eccentricity. His rise to the role of being the sole sovereign has taken place gradually. His state-sponsored elections are orchestrated to

¹³⁸ Ibid., pp. 16-17

¹³⁹ Ibid., p. 12.

¹⁴⁰ Ibid., p. 13.

¹⁴¹ Ibid.

¹⁴² Ibid., p. 17.

¹⁴³ Ibid., p. 10.

maintain his aura of legitimacy. The latter have also been developed over the years as Putin has attained charismatic authority, where legitimacy comes from people who believe in him. 144

How does Putin apply *sistema*? From 2000 to 2012 the first version of Putin's system, known as "managed democracy," was in place. During this period, for wealthy players, when contracts, sales, or mergers reached a specific level they had to see Putin to explain their project. If Putin accepted their agreement it was "placed on deposit." After 2012, however, Putin added another layer of uncertainty, noting that he is only "kept up to date with the situation." As a result, visitors leave with a vague idea of what they are to do, trying to remember every word Putin said, as these are the only license for acting that they have. ¹⁴⁵

Pavlovsky noted the following:

Thus, 'orders' become 'deals'; in Putin's *sistema*, governance requires the temporary appropriation of the state regulator by groups of players. While participating in this game, a player may alternate his roles, moving from private entrepreneur to law enforcer, while continuing to benefit from the deals. 146

Putin does not reveal his goals. His decision-making "has become almost purely reactive. It is based not on goals but rather on current threats." ¹⁴⁷

Pavlovsky notes the following at the end of his discussion of *sistema*:

Putin's Kremlin team has been extremely skillful at nationalizing private resources and, in a sense, privatizing Russian politics. But they will have no idea how to run

¹⁴⁵ Ibid., p. 11.

¹⁴⁴ Ibid., p. 16.

¹⁴⁶ Ibid., p. 14.

¹⁴⁷ Ibid., p. 12.

Russia when Putin is gone...the only way he [a new ruler] will be able to rule is through *sistema*. 148

Pavlovsky has clearly been able to stay in touch with the *sistema* mode of thought. He may not, of course, know about any subtle changes to the system since his departure in 2011. Still, the architecture he describes is of interest to those outside the system. In many ways *sistema* appears to be a combination of political art, where groups of people and "players" are the regimes weaponry.

Conclusions

Cadre changes reflect Putin's desire to keep a balance of forces among his security institutions in order to prevent one force from assuming primacy over another. Pavlovsky claims that the Kremlin uses a decision-making procedure known as *sistema*, which is built around the premise that the state should enjoy unlimited access to all national resources, public or private. *Sistema* works by keeping the country in a kind of permanent state of emergency, which is required, from the state's perspective (real or contrived), to solve urgent state problems.

It thus appears that a system is in place to serve as a Palace Guard of sort for Putin's rule. Analysts should be on the lookout for further changes to this complicated security system based on checks and balances of competing entities.

¹⁴⁸ Ibid., p. 17.

CHAPTER THREE: MEDIA CONTROL VIA MANIPULATION AND THE METHODOLOGY OF THE HALF-TRUTH

The very disrespect of Russians for objective truth—indeed, their disbelief in its existence—leads them to view all stated facts as instruments for furtherance of one ulterior purpose or another—George Kennan, 1946¹⁴⁹

Introduction

Interestingly, Kennan's observation about Russia's leadership (and the instinct of its population to believe much of the TV programming to which it is subjected) once again is as true today as it was during the Soviet era. Changing narratives, manipulations of objective reality, and the use of the abject denial of specific events (and creation of alternate views of such events) continue to operate in two ways, internally and externally. Internally, the use of these techniques helps shore up faith in the government, which sees an existential threat to its rule everywhere and thus continually searches for support. As *The Economist* noted recently:

Unable to deliver economic growth, the Kremlin needs to cook up reasons to keep the population in a constant state of mobilization against external threats. The way the propagandists tell it, Russia is surrounded by enemies and can only be defended by Mr. Putin. The past is reshaped to fit this story...the government has commissioned new history books...¹⁵⁰

In that sense the mobilization of the population is no different than the way information is used to support *sistema*, as discussed in the preceding chapter.

¹⁴⁹ Special Report (insert), "Russia," *The Economist*, 22 October 2016, p. 11.

¹⁵⁰ No author provided, "The Battle for Russia's History: Remember, Remember," *The Economist*, 5 November 2016, p. 43.

Externally, Russia's reality is forced on Western democracies in a different way through the exploitation of a democracy's free press and open platform of discussion. Recently, the British Army ran a propaganda war game designed to test Russia's peacetime information actions. They found out quickly that responses to Russian accusations were time consuming and nearly impossible to rebut. Verifying the situation proposed by Russia, drawing up a statement in response, and getting the wording approved by the Defense Ministry take hours or days. By that time not only has the Russian disinformation been spread widely on social media but also other accusations now take center stage. Even credible rebuttals receive little attention. Further, in regard to manipulating physical actions via the media, the war game proposed that when British soldiers are stationed in the Baltics a Russian-backed plot somehow could involve soldiers in brawls to discredit and undermine their presence. 151 Perhaps these are some of the nonmilitary actions that Gerasimov proposes in Chapter Five below.

This chapter examines how Russia manipulates objective reality and utilizes the methodology of the half-truth through the work of Russian media outlets. It is vital to point out, however, that it is "state" media that is referenced here as the culprit. There are still a few outlets in Russia for REAL objective reporting, and those voices require our continued respect and admiration. Retired Major General Oleg Kalugin, who was in charge of Soviet counterintelligence, indirectly complemented these journalists when he noted that "people who are well informed and get their information from different sources inevitably start thinking." ¹⁵²

Manipulating Objective Reality

Perhaps one of the best discussions of how Russia manipulates the truth is Arkady Ostrovsky's new book on the topic, *The Invention of Russia: From Gorbachev's Freedom to Putin's War*. Ostrovsky is a

¹⁵¹ Deborah Haynes, "War Game Proves UK is No Match for Russia in Propaganda Battle," *Times Online*, 17 December 2016.

¹⁵² Arkady Ostrovsky, *The Invention of Russia: From Gorbachev's Freedom to Putin's War*, Viking Press, 2015, p. 97.

Russian-born journalist who has written for the *Financial Times* and is currently the Russia and East European editor for *The Economist*. He has hundreds of contacts in Russia and used them well in the preparation of his book. It is a gripping tale of how reality is created and, when necessary, recreated to cover up problems or to reorient the population's focus and help them forget problems at hand.

In the book's introduction Ostrovsky writes that Ukraine's war with Russia, which was buoyed by Russia's attempt to correct its Cold War losses and feeling of rejection by the West, unleashed a new reality that has corrupted Russia's sense of decency and morality, turning "xenophobia and aggression into a norm and civility into an offense." Related to this emotional construct are some of the last words spoken by Boris Nemtsov, the liberal politician who was gunned down in 2015 near the Kremlin. Just hours before his death he had stated that "Russia is quickly turning into a fascist state" with propaganda akin to Nazi Germany's. 154

Ostrovsky's important book is thus about how Russia is using the media to create a new internal and external reality for its citizens, its diaspora abroad, and liberal international media outlets. First, the media are creating a reality based on lies or replacing lies that were dismantled when the Soviet Union collapsed and lost its legitimacy. This required creating core values and reality out of things that did not exist. The new reality is harnessed with the power of TV to foster patriotism, collectivism, state power, and the primacy of the state in support of Putin. Second, main characters (ideologists, television executives, and editors in charge of the message and the media) "composed the storyline, produced and broadcast it, and in the process led the country from freedom to war." The book, as a result, is the story of the "Russian brand" that these people invented. The words and images they produced concealed facts and invented an alternative reality supported by lies and

¹⁵³ Ibid., p. 2.

¹⁵⁴ Ibid.

¹⁵⁵ Ibid., p. 6.

repressions. Today TV remains the medium that perpetuates Putin's power and stirs hatred toward the West.

Ostrovsky notes several times that the "TV image is everything." ¹⁵⁶ It has remained, from Soviet times to today, the primary way that Russian citizens acquire news. As Konstantin Ernst, the director of Channel One, noted: "Our psyche is set up in such a way that only an artistic form can explain the time we live in." ¹⁵⁷ In regard to Ukraine, Ostrovsky writes that without Russian TV, the war in Ukraine would not have started. ¹⁵⁸ TV works like a psychoactive agent, a hallucinogen that does not just distort reality but invents it. ¹⁵⁹ The media and TV are driven by the methodology of the half-truth, which is based on the concept that there is no such thing as "truth," just objective reality as created by the Kremlin. For this reason Ostrovsky even has an entry under "media' in his index of "invents reality." ¹⁶⁰

Vladislav Surkov, Putin's political advisor, is, in Ostrovsky's words, a master of manipulations and simulacra. When things do not go Russia's way, an illusion of change is created, a new narrative developed, and a new reality created. Russia is thus continually reinvented to fit Putin's latest response to sanctions, doping charges, or some other humiliation. With regard to Ukraine, one of the well-documented creations of reality occurred on July 12, 2014, when Channel One interviewed a Ukrainian woman who told a heart-wrenching story:

The woman said she had witnessed the public execution of a three-year-old boy, who was crucified in the crowded main square of Slavyansk when Ukrainian forces retook it. She provided the gory details: the Ukrainian 'animals'...cut into the little boy's flesh and made him

¹⁵⁶ Ibid. See, for example, p. 87.

¹⁵⁷ Ibid., p. 319.

¹⁵⁸ Ibid., p. 318.

¹⁵⁹ Ibid., p. 319.

¹⁶⁰ Ibid., p. 365.

¹⁶¹ Ibid., p. 309.

suffer for an hour before he died. The woman added that the boy's mother was then tied to a tank and dragged along until she too was dead. 162

Ostrovsky noted that this totally fabricated story aroused hatred among the populace, as did the use of stories to inflame Jewish pogroms in prerevolutionary Russia. The point of such an information war is to draw the civilian population into the conflict.

Putin, of course, has either guided this effort or been guided himself by the characters mentioned above. He and his ensemble of propagandists work from the idea that the West betrayed Russia and is continuously trying to surround it. He believes that America's policy is based on "arrogance, exceptionalism, and impunity" (it is hard to find three words that better fit Russia's leadership, but that is a debate for another time). Media executives, among them several oligarchs or bureaucrat-entrepreneurs who initially controlled television stations and thus internal propaganda, fought for Putin's attention, usually through expressions of extreme loyalty to him. Their media empires gradually eroded as Putin came to realize that media control is a prerequisite for power in Russia.

This conviction has resulted in state control over TV stations such as NTV. Putin has rejected Yeltsin's federalism and stolen political independence, Ostrovsky writes. ¹⁶⁴ Incredibly, Putin continues to feel insecure in his position, it seems, and thus is continually obsessed with thwarting any chance for a "color revolution" to occur in Russia, preventing Russia's encirclement by other nations, and a constant need for internal protection, as witnessed by his recent creation of a 340,000-man national guard.

In July 2016 this obsession with security was expressed in another way, this time via a State Duma Deputy's recommendation to

¹⁶² Ibid. p. 319.

¹⁶³ Ibid., p. 324.

¹⁶⁴ Ibid., p. 326.

impose a ban on the distribution in Russia of Pokemon Go, a popular mobile game, which, the deputy noted, could be involved in espionage or even terror attacks. This would be accomplished through the transfer of photographic or video recordings on the mobile device of facilities and areas in Russia (which indicates Pokemon Go is more of a security risk than drone or satellite images). Communist Party member Denis Voronenkov noted the following:

It is common knowledge that the structures responsible for psychological warfare in the United States are attempting to create by means of video games a future war pattern suitable for Washington's goals and purposes to the fullest extent, a high-technology and cutting-edge 'war of the 21st century,' a war in an American way. 165

A recent report from the US Center for Strategic and International Studies and the Bulgarian-based Center for the Study of Democracy was titled "The Kremlin Playbook: Understanding Russian Influence in Eastern and Central Europe." While the study did not focus on the manipulation of objective reality (as Ostrovsky did), it noted that Russia is employing covert economic and political measures to manipulate countries and discredit democratic models. Hostile activities attributed to Russia include bribery, propaganda, disinformation, and use of the Internet to undermine opponents and institutions. ¹⁶⁶

Late in 2016, Liz Wahl, a former *Russia Today* (*RT*) presenter, was interviewed at *EurActiv.com*. She noted that the ultimate aim of Russia's media disinformation machine is to destabilize the West. Since *RT* constantly criticizes everything American, it becomes a psychological echo chamber. She noted that *RT* creates false equivalence and pushes the idea that there is only perspective, not objective truth. She rejects the *RT's* relativist point of view, which, in her opinion, has become shameless in its bid to create chaos, confusion, and division. When it comes to stories about Russia, *RT* offers a surge of

¹⁶⁵ Interfax (in English), 20 July 2016.

¹⁶⁶ No author or title provided, *EurActiv.com* (in English), 13 October 2016.

unsubstantiated information and false conspiracy theories. Wahl concludes that there is a fundamental difference between opinion and a manipulation of facts. ¹⁶⁷

The Methodology of the Half-Truth

Russia has constructed a methodology, which appears to involve five steps, to discredit an opponent's assertions about its actions. It is not used in all instances, however. When an event happens (the downing of MH17, for example) the initial response is to (1) deny guilt and involvement and to immediately (2) begin creating evidence of another side's involvement. This involves finding elements of another nation's forces or assets in the area or simply fabricating their existence. Next, (3) reasons for the other side's forces being in the area are developed, that is, why they would have taken part in the action under consideration.

In the MH17 case, Russia made a spectacle of the event, with most emphasis on (2) above, i.e. creating other versions of what happened. The Russians offered three or four versions of events, hoping that one would catch fire and be taken as truth by the international community. Meanwhile, the Western account of what happened stayed the same from the very beginning of the assessment. The guilty party was identified and the story line leading to the party's identification was clear and based on several layers of analysis by the international community. Russia had earlier shot down Ukrainian military transport planes and, when radar picked up an airliner, troops on the ground assumed it was another Ukrainian military airliner. The plane was followed and shot down, and Russians in the area celebrated the action. Even radio intercepts at the time indicted the Russian air crew. When it was apparent that this was a civilian airliner, the air waves went silent. There were photos of the Buk air defense system that shot at the plane departing the area minus one missile. All evidence pointed to Russian and surrogate involvement.

Over the coming months, several alternative scenarios were

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¹⁶⁷ Karolina Zbytniewska interview with Lis Wahl, no title, *EurActiv.com* (in English), 22 December 2016.

presented by Russia as to what had occurred. When the final report by independent observers had been prepared, Russia tried yet again to preempt the report by offering literally the day before the report's release a new version of what had occurred, even though it had over two years to prepare and offer such a report. The Netherlands version included video evidence that was, in the end, irrefutable. To date, the Russians still have not accepted the report's conclusions. They will most likely try to manipulate these findings yet again for their own purposes.

In the meantime, Russia takes the findings of other nations or the international community and will (4) state that these are merely information attacks against Russia. These attack accusations are accompanied with a statement from Russia that the reason for the attacks is that events, in the case of an accusation from the US, are "not unfolding according to the US's scenario." It then follows that there will be (5) pleas that the other side exhibit "common sense" and end its tone and rhetoric, with the added statement that Russia is "detached from unnecessary emotion." Meanwhile, Russian citizens are denied access to much of the countervailing information. It is also important to note that the five-step methodology usually does not work with cyber events, as the accusing side rarely wants to provide the perpetrator with evidence that gives away sources and means.

A more recent example of covering up or using parts of the big half-truth (or "lie") is the recent Olympic doping scandal that rocked Russia. Its athletes in Sochi in 2014 and elsewhere since 2011 were found to have been using performance-enhancing drugs that were covered up during urinalysis. It took many months for the Russian sports authorities to admit to this charge, but in mid-December 2016 they finally did. However, the same authorities added that the reason Russian athletes used such drugs was because there was worldwide use of them during the Olympics and the Russian athletes were only trying to level the playing field. Of interest, of course, is that, according to this scenario, there should have been many athletes from other nations caught in the doping net, but such charges simply have not appeared.

Internal warnings are another thing, however, and something to which the population pays special attention. Russian citizens are never

told the rationale behind some of the warnings, meaning that not only is no alternate information offered but also no information on the current dilemma at hand. With no other source of data. Kremlin directed developments are bound to catch on with the populace since there is no other rebuttal source. Take, for example, the October mobilization development of various sectors of the economy for no apparent reason. On 10 October 2016 the Saint Petersburg governor authorized storing enough grain to provide 300 grams (two-thirds of a pound) of bread per resident for 20 days, which resonates in a city that endured a 900-day siege by Germans in World War II. The next day Parliament and government officials with relatives abroad were informed to bring them back to Russia immediately. Fliers were spread asking residents in a Moscow district to contribute money to hasten construction of a bomb shelter in case of nuclear aggression. 168 Two weeks later civil defense plans were dusted off, with 40 million people, i.e., more than one-fourth of the population, rehearing responses to chemical and nuclear threats. Some businessmen offered to build nuclear bunkers for private citizens. starting at \$24,000, which would house a family of four for only up to eight hours. 169

Was this a way to distract citizens from economic hardships, to intimidate the West, or both? The problem is that the falsification of reality in ways such as this to manipulate fears cannot always be controlled. It can result in catastrophic miscalculations for both perpetrators and recipients. This is especially so when *RT* head Dmitry Kiselev threatens the West with nuclear weapons, when ultranationist Vladimir Zhirinovsky notes that if Hillary Clinton was elected, World War III would follow, ¹⁷⁰ or a recent Russian weather reporter who had a screen behind him that showed a nuclear blast over Omaha, Nebraska. As one analyst noted about these nuclear and world war references

¹⁶⁸ Michael Khodarkovsky, "Playing with Fear: Russia's War Card," *The New York Times International Edition*, 27 October 2016, p. 15.

¹⁶⁹ Thomas Grove, "In Russia, Cold War Is Hot," *The Wall Street Journal*, 25 October 2016, p. A9.

¹⁷⁰ Khodarkovsky.

But a nuclear-armed world is no sandbox, and budding war hysteria in a huge country afflicted with imperial nostalgia, one-man rule, a looming demographic crisis, ethnic tensions, and a declining oil-dependent economy cannot be dismissed lightly...Russia's military and its nuclear arsenal remain the only aces in Mr. Putin's hand. So the Kremlin can be expected to continue escalating its disinformation and propaganda. ¹⁷¹

Russian Social Media and Those Cyber Attacks

There are numerous social media sites in Russia, and several clearly have a manipulative flavor. According to a US source, two of them that were especially provocative during the US elections are "Katehon" and "Just Trump It." The former is a right-wing Christian think tank aligned with Putin. At one time during the election campaign it circulated anti-Clinton conspiracies, such as a purported Clinton link to mysterious murders. The latter website is linked to the International Russian Conservative Forum, composed of far-right leaders from St. Petersburg. A greater fear is that these two sites and others like them could merge Russian interests with far-right agitators in the US and Europe. The result is an "amplification" effect of these obscure voices and distorted messages that enables them to present their views to a credulous, young Internet audience. Sometimes their messages become mainstream. Russia is quite adept at spreading propaganda through such proxies. 172

With regard to Russian cyber-attacks, this is a phenomenon that has taken place over the past decade in numerous nations around the world. Germany, Sweden, Lithuania, Norway, Finland, Estonia, Georgia, Ukraine, France, and Denmark are but a few of the countries that have directly blamed Russia for attacks on their systems. Scott Borg, President of the US Cyber Consequences Unit, notes that Russia has tried to influence local elections in three or four eastern European counties as

¹⁷¹ Ibid.

¹⁷² Mike McIntire, "How Putin Fan Pushed Trump From Overseas," *The New York Times*, 18 December 2016, p. 25.

well as Germany. A member of the German Council of Foreign Relations noted that the Russians tailor the attacks to the circumstances of each country. And such incursions have been going on even longer against the US, since at least the mid-1990s.

It was the alleged (by US intelligence agencies) Russian cyberattacks against the Democratic National Committee (DNC) that have garnered the most news over the past several months. President Obama, at his traditional year-end news conference, implicated Putin in the attacks, noting that not much happens without Putin's permission in Russia and that these attacks happened at the highest levels of the Russian government. On 29 December the Department of Homeland Security and the Federal Bureau of Investigation released a document known as *Grizzly Steppe*, which outlined Russia's malicious cyber activities. The report noted:

This document provides technical details regarding the tools and infrastructure used by the Russian civilian and military intelligence services to compromise and exploit networks and endpoints associated with the US election, as well as a range of US Government, political, and private sector entities. ¹⁷⁴

Russia has worked to disrupt elections and undermine democratic values not just in the US but in several European countries as well. A *New York Times (NYT)* report stated that, with regard to the US, what began as an information-gathering operation eventually turned into an attempt to harm one candidate (Hillary Clinton) and leave the other candidate alone. Private e-mails and confidential documents appeared online day after day. Some leading democrats resigned over the releases while others were simply silenced by revelations. The crux of the issue became this: did Russia move beyond espionage and instead deliberately

 ¹⁷³ Robert Windrem, "Timeline: Ten years of Russian Cyber Attacks on Other Nations," downloaded from http://www.nbcnews.com/pages on 27 December 2016.
 174 "GRISSLY STEPPE—Russian Malicious Cyber Activity," *Joint Analysis Report*, 29 December 2016, p. 1.

try to subvert American democracy by manipulating public opinion and thus help influence votes and thereby the winner of the election? Admiral Michael Rogers, director of the National Security Agency, noted that "this was a conscious effort by a nation-state to attempt to achieve a specific effect." ¹⁷⁵

Investigators of the DNC hacking included the CrowdStrike security firm, which recognized the work of two advanced persistent threat (APT) groups from Russia: Cozy Bear and Fancy Bear. The former, the *NYT's* article noted, may be associated with the Russian Federal Security Service (FSB) and the latter with the military's Main Intelligence Directorate (GRU). The concern, however, was that the activity had transferred from espionage to political sabotage. An operative named Guccifer 2.0, who CrowdStrike believed administered a Russian-run site, released the DNC's battle plan and budget for countering the Republican National Convention.

Later, as Guccifer had promised, *WikiLeaks* dumped 44,000 or so private DNC e-mails (with attachments) and those of Hillary Clinton into the public domain just before the Democratic National Convention. *WikiLeaks* thus became an even bigger problem than Guccifer. Some of the e-mails infuriated Bernie Sanders, Clinton's opponent at the time. *WikiLeaks* continued to release e-mails day after day over the last month of the campaign: 176

They disclosed the contents of Mrs. Clinton's speeches to large banks, which she had refused to release. They exposed tensions inside the campaign, including disagreements over donations to the Clinton Foundation that staff member thought might look bad for the candidate and Ms. Tanden's [a key Clinton supporter] complaint that Mrs. Clinton's instincts were

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 ¹⁷⁵ Eric Lipton, David E. Sanger, and Scott Shane, "The Perfect Weapon: How Russian Cyberpower Invaded the U.S.," downloaded 14 December 2016 at http://www.nytimes.com/2016/12/13/us/politics/russia-hack-...
 176 Ibid.

'suboptimal.' 177

With the focus solely on the DNC and Clinton, whom Putin does not like, and with the lack of attacks against Republicans, there appeared to be the intent to damage the credibility of one of the contestants in the US Presidential race. However, the *Wall Street Journal* in mid-December reported that the Republican National Committee thwarted the same Russian hackers who penetrated the DNC. However, the effort was less aggressive, as only a single e-mail account linked to a departed staffer was targeted. The CIA, the report notes, believed the Russian hackers intended to harm the Clinton candidacy and boost Donald Trump's chances. 178

In early January the declassified report became available. It said that US intelligence concluded that the Russian government wanted to undermine public faith in the US democratic process and denigrate Democratic candidate Hillary Clinton. The intelligence agencies have "high confidence in their judgments." The agencies also noted that the Russian operation was only the most recent in a long-standing desire to undermine liberal democracies. Is In the past, Russian involvement has been documented in the Ukrainian elections, and both the German and French governments have warned voters about such occurrences as they ready for elections in 2017.

Conclusion

This chapter focused initially on how Russia forces its version of reality on Western democracies through the exploitation of a democracy's free press and open platform of discussion. The West's attempts to verify situations proposed by Russia and draw up a statement in response (and getting the wording approved) can take hours or even

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¹⁷⁷ Ibid.

¹⁷⁸ Shane Harris, Devlin Barrett, and Julian E. Barnes, "RNC Security Foiled Russian Hackers," *The Wall Street Journal*, 16 December 2016, pp. A1, A5.

¹⁷⁹ Shane Harris, Damian Paletta, and Carol E. Lee, "Putin Ordered Hacking, Spies Say," *The Wall Street Journal*, January 7-8, 2017.

days. By that time not only has the Russian disinformation been spread widely on social media, but also other accusations now take center stage. Even credible rebuttals receive little attention.

Russia continues to mobilize the population through explanations of conspiracies and external threats to the nation's survival. In most cases Russian propagandists exploit the use of perspective over truth. Russia's media presentations around the world on *Sputnik* or *Russia Today* are clear attempts at manipulating audiences with their version of objective reality, which may, in fact, differ tremendously from that of democratic nations. Further, Russia has learned to deflect criticism of its own failures with what was described as the methodology of the half-truth, a method that often follows familiar steps. When Russia does admit to a wrong, it then attempts to cover that "mistake" up by stating that others do the same and Russia is only trying to "level the playing field."

Russia has become expert at using social media to influence events. This is often accomplished through the use of trolls or other surrogates to enhance the Russian perspective and exploit the free press of open democracies.

Finally, it is important to note that Russia attempted to put many resources together during the last US presidential election. It was able to influence voters, some believe, with a deluge of negative information about one of the candidates. Democracies worldwide must be on the lookout for such techniques as they move nearer to their next electoral process.

The warning is quite clear. Democratic constituencies must remain very skeptical about news reports from Russian sources in particular. They bank on persuading with perspective and not the truth. Mental barriers to such input must be developed for both citizens and governments to recognize the methodology of the construction of an objective reality that is based on fake news or facts taken out of context.

CHAPTER FOUR: RUSSIAN CONTROLS OVER NATIONAL AND INFORMATION SECURITY: STRATEGIES, DOCTRINE, CONCEPTS

Introduction

In 2016 new strategies, doctrines, and policies appeared in Russia. On the final day of 2015 President Vladimir Putin approved the nation's new *National Security Strategy (NSS)*. The strategy is important for it offers the basic roadmap of interests that appear to drive Russia's political and military leaders in their quest for stability and, in the Russian lexicon, equal security. Without knowledge of this strategic overview, it is much harder to visualize where Russia's priorities lie in its geopolitical quests to right what Russian President Vladimir Putin describes as not only a "wrong" but the greatest geopolitical tragedy in the history of the world, the disintegration of the Soviet Union.

Other documents were prepared and published or discussed as 2016 progressed. First, a new *Information Security Doctrine (ISD)* was published, designed to supersede the 2000 version. The new *ISD* discusses national interests in the information sphere, a host of associated terms, information threats to Russia, and strategic goals to ensure information security.

Next, Putin signed decrees in regard to a new *Science and Technology Development Strategy (STDS)* and a new *Concept of Russian Foreign Policy (CRFP)*. To date, the actual text of the latter two have not been published; thus, they will not be discussed in the same detail as the *NSS* and the *ISD*.

There is another important distinction to point out in regard to the understanding of the word "doctrine" in the US and Russian lexicons. In Russian, doctrine is the equivalent to the US concept of policy. The US term "doctrine" is equivalent to the Russian term military art. Thus, the Russian *ISD* is equivalent to an information security policy in US terminology.

As 2017 unfolds, it is important to stress that Putin has developed strategies, doctrines, and policies that serve as control agents over planning processes for his military and security agencies. He stated that "it is necessary to closely monitor any changes in the balance of power and the military-political situation in the world..." He also added in late 2016 that "Russia's new *ISD* was approved; and a bit earlier, a *STDS*. The guidelines they set concern all bodies of power, including military and security agencies." At year's end he also highlighted the nation's security and military achievements (especially weapon improvements) during the year and laid out tasks for Russia's defense establishment.

For Putin, developing new weaponry was closely tied to equalizing Russia's balance of power with the West. In November 2016 he stated that he will use modern technology (lasers, hypersonic weapons, robotics, and weapons based on new physical principles) to maintain the strategic balance of forces in the world. Such technological improvements and new developments are enabling him to shape the environment by neutralizing the military threats he enumerated that are aimed at Russia, such as information wars, strategic missile defenses, and global strike concepts. 183 He has responded with strategic deployments of Iskander-M short-range ballistic and cruise missiles systems, Kaliber missiles, and Bal air defense systems in Kaliningrad, Crimea, and other areas. The intent of such weaponry is to deter potential enemies in important areas of Europe. The possession of unique technologies allows Putin to believe he maintains control over Russian sovereignty. Meanwhile, almost out of the public focus due to tensions in Europe, Russian forces continue to further militarize the Arctic.

Putin longs to promote the interests of Russian companies on global markets. This is accomplished by creating favorable conditions for the development of non-resource exports and protecting products

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¹⁸¹ Rossiya 24 Television, 22 December 2016.

¹⁸² Ibid.

¹⁸³ Rossiya 24 Television, 18 November 2016.

from unfair competition. ¹⁸⁴ He thus continues to shape the environment in pursuit of national interests, whether it be protecting energy deposits or attempting to threaten neighbors into submission with weapon deployments. Again, the purpose of strategic stability and equal security is to establish control over the environment.

This chapter will examine how Russian aims to control its external and internal security environments through the documents listed above.

The NSS: What Should be Followed Closely?

The NSS analysis below focuses on two very different elements of the strategy. The first issue is merely statistical. It examines the number of times specific verbs and nouns are used to describe the content of the NSS. Verbs such as creates, shapes, defines, focuses, blames, and worries and nouns like interests, priorities, stability, threats, goals, and struggles dot the strategy, and refer to both international and domestic issues. They help indicate where emphasis is placed and how serious it is. Verbs indicate potential confrontation (the word "struggles" is highlighted for this case), and nouns such as "threats" do the same.

The second, and much lengthier, issue examined in the *NSS* is the concerns expressed in the document. Two items stand out: first, Russian concern over internal stability, which coincides with an authoritarian regime's tendency to be insecure and search out existential threats to the regime; and second, Russia's attempts and abilities to persuade and threaten in order to shape the environment in pursuit of its national interests and make Russia greater than it already is.

Putin's strategic desires, as expressed in the strategy, appear to have been followed. In March and November 2016 Putin's actions, and statements by others on Russian TV, indicated positive accomplishments. One March report encapsulated a Putin *NSS* worry as follows: "The practice of overthrowing legitimate political regimes, and inciting domestic instability and conflicts is becoming increasingly

¹⁸⁴ Interfax (in English), 7 December 2016.

widespread."¹⁸⁵ This worry over internal threats apparently had finally manifested itself completely after the events in Ukraine, which motivated Putin to address issues discussed at length in Chapters One and Two, his development of a National Guard and his cadre changes, both designed to ensure loyalty and stability.

The NSS is defined as

The basic strategic planning document defining the Russian Federation's national interests and strategic national priorities, objectives, tasks, and measures in the sphere of domestic and foreign policy aimed at strengthening the Russian Federation's national security and ensuring the country's sustainable development in the long term. ¹⁸⁶

It consolidates the efforts of the organs of state power, and is the basis for shaping and implementing state policy. Understanding Russia's national interests and priorities helps visualize where political and military emphases will be placed to establish control over the environment in the coming years.

Nowhere in the document is the term strategy actually defined, so its definition is left to the discretion of the reader as to the source he chooses to define strategy. Of the terms "indirect," "asymmetric," and "nonmilitary," which the Russians use to describe their military theory and actions, the document only used indirect and nonmilitary, offering each only once. The more often referenced US terms for Russian military actions, such as "hybrid" and "new generation" were not used, and neither was the Russian term "new type" for describing future war templates.

¹⁸⁵ Velimir Razuvayev, "Second Wave of Chekists Come to Power -- Kremlin Finishing Building Power Vertical to Govern Country," *Nezavisimaya Gazeta Online*' 4 March 2016.

¹⁸⁶ "The Russian Federation's National Security Strategy," *President of Russia* website, 31 December 2015.

However, other terms were used quite often. "National," "state," "security," and some form of the word "develop" were each used over 100 times. Some form of the term "economy" was used 97 times, "organ" 79 times, "formation" 54 times, and "military" 52 times. Some form of "create" (ing, ed, tion, etc.) and "implement" were used 37 times each, "information" 36 times, "stability" 35 times, "threat" and "strategy" 24 times each, "power" and "culture" 23 times each, "law" 22 times, some form of "equal," "moral," and "values" 14 times each, and "priority" 13 times. 187 Of course this assumes that the same word was used each time in the translation. For example, the Russian for "moral" could have been "moral'nyi" or "dukhovn'y" or "nravstvenn'y." 188

There was one word and one concept of special interest. The *NSS* used the word "struggle" on two occasions, but the sentences containing the word may be among the most important in the document. "Struggle" indicates an active confrontation among various factors for control, where East meets West. There is a struggle underway, the *NSS* notes, for resources, access to markets, and control over transportation arteries. There is also a struggle for influence in the international arena, which includes the use of political, financial-economic, and information instruments.

The concept of "special interest" is the "indicators for evaluating the state of national security," factors that will purportedly allow Russian security officials to know if the *NSS* is being fulfilled. Thus, the struggles (resources, markets, transport arteries) and indicators should be followed closely over the coming years.

¹⁸⁷ When a statement in the strategy appears off base (or statements in the *ISD* document), brackets follow the statement with this author's short counter explanation or description of what was omitted from the Russian contention. As an example, while Russia states it wants to ensure strategic stability, the phrase is followed by this type of reference: [in Ukraine, Russian actions have done the opposite, exacerbating and weakening strategic stability]. Sentences/words not in brackets are taken directly from the *NSS*. Some words are placed in **bold** just to help the reader focus on what is important.

¹⁸⁸ Example offered by Dr. Harold Orenstein.

The sections that follow will describe in more detail some important concepts found in the *NSS*. First, the Russian Federation's objective is defined in the document as the attempt to acquire as many equal partners as possible in various parts of the world. Goals include national defense goals, which are defined as the creation of conditions to develop and ensure military security. According to the document, goals are achieved by implementing military policy through strategic deterrence, preventing armed conflict, improving military organizations and forms and methods for armed force deployments, and increasing mobilization readiness. Second, strategic deterrence is noted to be the result of interrelated political, military, military-technical, diplomatic, economic, information, and other measures, to include maintaining the capacity for nuclear deterrence. Strategic interests and priorities, values, and future partners are also highlighted below, along with numerous threats to national security.

Concerns and Warnings: The National Security Strategy

The NSS aims to create favorable internal and external conditions for realizing national interests and strategic national priorities [this is perhaps its overarching goal]. It is stated to be the basis for shaping and implementing policy, and is based on the interconnection between national security and the country's socio-economic development. Western analysts should be on the lookout for the conditions that Russia is trying to create.

The **main concept** found in the NSS is to protect the individual, society, and the state against internal and external threats. National security includes the country's defense and all types of security (state, public, information, environmental, economic, transportation, energy, and individual). Russia wants to protect the rights of compatriots abroad [this was discussed twice in the *NSS*] and resolve and settle international problems and ensure strategic stability [in Ukraine, they have done the opposite, exacerbating problems]. The rising generation is being fed values that shape a proper attitude toward Russia's history [a history that has been rewritten by today's authorities]. Western analysts should be on the lookout for ways Russia's military and political leaders look to enhance strategic stability.

The NSS notes that the US and its allies are trying to contain Russia via political, economic, military and information pressure. In the meantime there is a struggle underway for resources, access to markets, and control over transportation arteries. There is also a struggle for influence in the international arena, which includes the use of political, financial-economic, and information instruments. Russia, on the other hand, is offering its leadership in exploiting Arctic resources [by militarizing the Arctic]. The principles of equal and indivisible security are not being observed [there were four mentions of the equal security concept; the Soviet-era term "equal security" has now returned to the lexicon. It envisions equal security as, for example, the placement of weaponry in Cuba to offset proposed missiles in Poland. If both sides are threatened with deployments, then equal security exists according to this line of thought].

Russia worries about the militarization and arms-race processes developing in regions adjacent to Russia [even though Russia has blatantly militarized the Arctic and caused Western/NATO responses to Russian actions in Ukraine]. NATO's buildup is a threat to Russian national security, the strategy notes. The document adds that stability opportunities are shrinking due to US missile defense systems that are implementing the "global strike" concept, and to deployments of strategic nonnuclear precision weapons systems and weapons that could be deployed in space. The US has used a persistent block approach in international relations with the EU and NATO [no mention is made of Russia's block approach, such as its advancement of the Eurasian Economic Union in 2013 to lure Yanukovich away from the EU, the formation of the Shanghai Cooperation Organization, or the BRICS partnership]. The West has tried to counter integration processes and has created seats of tension in the Eurasian region [Russia has created its own seats of tension in the region, including instability in the Baltics, whose countries feel they could be next on Russia's intervention list.].

The NSS blames others for overthrowing legitimate political regimes and provoking instability [Russia ignores that it attempted to lure Yanukovich away from the EU and offered fixed elections in Crimea and at home]. Russia writes that migration flows demonstrate the non-viability of regional security systems. Some countries aspire to

information and communication technologies to achieve geopolitical objectives, sometimes unlawfully, by manipulating public awareness and falsifying history [no one has manipulated the media recently more than Russia, rendering its own objective reality through the rewriting of history books]. Stability is weakened by financial, trade, investment, and technological policies of others that aim to resolve geopolitical tasks. Russia is focusing efforts on strengthening its internal unity.

following the The document lists strategic interests: strengthening the country's defense and national accord and ensuring the inviolability of the Russian Federation's (RF) constitutional order [except when Putin changes it for him to remain as president]; raising living standards; preserving and developing culture and moral values; increasing economic competitiveness; and consolidating the RF's status as a leading world power. Strategic national priorities include: national state, and public security; economic growth; technology, and education; healthcare and culture; ecology; and strategic stability and equal strategic partnership. National defense goals are to create conditions for development and ensure military security. Goals achieved by implementing military policy through strategic deterrence, preventing armed conflict, improving military organization and forms and methods for armed force deployment, and increasing mobilization readiness. Strategic deterrence is the result of interrelated political, military, military-technical, diplomatic, economic, information, and other measures, such as maintaining the capacity for nuclear deterrence. Military organization is to be improved though identifying existing and potential military risks and threats. The nature of modern war is studied. National defense is based on rational sufficiency and effectiveness, to include responses that use nonmilitary methods and means, peacekeeping and diplomatic mechanisms, military-technical cooperation, and arms control and legal instruments.

The NSS states that some countries aspire to utilize information and communication technologies to achieve their geopolitical objectives, including by manipulating public awareness and falsifying history [still used extensively by Russia's media and hackers, to include attempts to sway public opinion during the US presidential election]. **Threats to state and public security** are foreign state intelligence services, the

activities of terrorist and extremist organizations, radical public associations [which include nongovernmental organizations] that incite color revolutions, criminal organizations, and information and communication technologies that disseminate the ideology of fascism, criminal offenses, corruption, and national disasters. An increase in the effectiveness of oversight bodies is desired, as well as the eradication of conditions and causes of corruption [ironic, considering the extent of corruption in Russia, to include the arrest of Russia's economic minister for corruption].

The system for **identifying and analyzing threats** to the information sphere is being improved [which could include limiting the type of information Russian citizens receive]; protection of citizens from extremist, foreign special services, and propaganda structures is being increased; and technical support for law enforcement agencies is improving [better System of Operational Investigative Measures (SORM) equipment, a domestic deterrence issue based on appearing to care for the population while systematically watching their every move on the Internet]. "Quality of life" strategic objectives include developing human potential, satisfying material, social, and spiritual needs, and reducing social and property inequality.

Economic threats to Russia include eleven points of concern: low competitiveness; dependence on external economic circumstances; the lagging development of future technologies; lack of protection for the financial system against foreign capital speculation; information infrastructure vulnerabilities; imbalances in the national budget system and the deterioration of the state's raw-materials base; reduction in the extraction of strategically important minerals; labor shortages; corruption and criminalization; and restrictive economic measures imposed on the RF. Provisions must be made for ensuring stability of the macroeconomic situation; increasing state management's efficiency; strengthening the financial system; ensuring a balance in the budget system; increasing the attractiveness of Russian jurisdiction; reducing critical dependence on foreign technologies; developing high-tech sectors and the defense industry complex; creating strategic reserves of mineral and raw-material resources; forming a single transport space; widening the use of state-private partnership instruments, such as in the Arctic; stimulating the development of small and medium-sized business; reducing informal employment; ensuring the balance of interests of the indigenous population and migrant workers; and developing more international business contacts and attracting foreign technologies [this is the opposite of what was stated earlier].

In the science and technology (S&T) sphere it is important to develop scientific potential; develop a national innovation system; form a system of basic and applied scientific research; develop promising high technologies (genetic engineering, robotic engineering, biological, communications, cognitive technologies, nanotechnologies); ensure Russia's leading positions in the spheres of basic math, physics, chemistry, biology, technical sciences, and humanitarian and social sciences; and enhance education with traditional Russian spiritual-moral and cultural-historical values. One threat to national security in the sphere of protecting citizens' health is to limit the availability of psychoactive and psychotropic substances for illegal consumption. The NSS notes that "the network of US military-biological laboratories on the territory of states adjacent to Russia is being expanded."

Traditional Russian spiritual and moral values include the priority of the spiritual over the material, the protection of human life and rights and freedoms, and other factors (family, service to the homeland, etc.). **Threats** to national security include the erosion of these traditional spiritual and moral values, a propaganda of permissiveness and violence, racial, ethnic, and religious intolerance, attempts to falsify Russian and world history, and encroachments upon cultural objects. Culture is strengthened by taking measures to protect Russian society against an outside influence from ideologies, values, and destructive information and psychological impacts on Russia; implementing control in the information sphere; and preventing the spread of extremist products, propaganda of violence, and racial, religious, and interethnic intolerance. Creating a state order for Internet resources and other information outlets is required.

Foreign policy relies on international law and the principles of equality and noninterference in states' internal affairs. Long-term steady

development to ensure strategic stability includes freeing the world of nuclear weapons, strengthening universal reliable and equal security, and other factors that influence global strategic stability. Strategic cooperation with the People's Republic of China is a key factor in maintaining global and regional stability, and India is also playing an important role. The RF states it is interested in a full-fledged partnership with the US on the "basis of coincident interests." This involves economics, arms control measures, the nonproliferation of nuclear weapons, cooperation in the fight against terrorism, and settlement of regional conflicts. Also of interest is developing equal and mutually "beneficial international cooperation in the Arctic."

Strategic stability for the RF is fostered under the following circumstances: preserving the stability of the system of international law; honoring international arms limitation treaties; preparing for a reduction of nuclear potentials; contributing to the strengthening of regional stability through participating in the reduction and limitation of conventional armed forces; considering peacekeeping as a way to settle armed conflicts; contributing to the formation of an international information security system; and participating in UN activities to alleviate disasters. The RF wants to develop relations with NATO based on equality in order to strengthen security in the Euro-Atlantic region. The RF finds NATO's increased activity toward Russia's borders and the building of a missile-defense system unacceptable.

The *NSS* is executed on a planned basis and makes comprehensive use of political, organizational, socio-economic, legal, information, military, special, and other actions developed as part of strategic planning. With regard to information, the following was highlighted:

The information basis for implementing this *Strategy* is provided by the federal strategic planning information system, which incorporates the information resources of organs of state power and local self-government, and also by the systems of distributed situation centers and state scientific organizations. In implementing this *Strategy*, particular attention shall be paid to ensuring information

security in light of strategic national priorities. The RF Security Council has a coordinating role in the information and information-analytical support for the implementation of this Strategy and also in its amendment once every six years...

Indicators for evaluating the state of national security are the citizens' degree of satisfaction with the protection of their rights and freedoms; the proportion of modern models of arms and military and special equipment; life expectancy; per capita GDP; decile coefficient (ratio of income to the most and least prosperous ten per cent of the population); inflation; unemployment; proportion of expenditure of the GDP on science, technology, and education; proportion of expenditure of the GDP on culture; and the proportion of territory of the RF not conforming to environmental standards.

The ISD: What Should be Followed Closely?

The *ISD* is described as a strategic planning document. It is divided into five parts with 38 sections. The December *ISD* was preceded by a draft information security doctrine in June that contained five parts but only 34 sections.

One foreign analysis of the *ISD* noted that the document is a vague plan that bolsters the military's propaganda output and ratchets up controls over the Internet in Russia. ¹⁸⁹ Other nations followed suit in their analysis, noting that "control" is one of the key objectives of the document.

Russian analysts who studied the *ISD* focused on other issues, noting that the doctrine emphasizes the country's information sovereignty, territorial integrity, and the maintenance of social stability, where human and civil rights, as well as crucial information infrastructure, are protected. One report advocated the need for offensive information warfare. Retired Colonel-General Leonid Ivashov, President of the Academy of Geopolitical Problems, stated that Putin's signature

¹⁸⁹ Paris AFP (North European Service), 6 December 2016.

on the doctrine means that "information warfare, which consists of information and psychological operations, has joined the ranks of the most important threats to the security of the Russian Federation." Further, he noted that strategic deterrence in the information arena assumes offensive operations, adding that:

...we need to not only defend ourselves from information propaganda in information warfare by countering all slander, lies, and distortions of historical truth. It is now necessary to take active offensive measures. This requires the development of specific materials for doing this. Here there must be both a theory of the issue as well as the technology for preventing conflicts. ¹⁹¹

Ivashov believes a responsible individual is needed to manage the processes of information deterrence, and it requires a staff to define theoretical designs and to plan information/psychological operations to deter aggressive acts. Forces and assets need to be designated. ¹⁹²

The *ISD* initially defined a number of terms. It defined information security in the following manner:

The state of protection of individuals, society, and the state from internal and external information threats that ensures the protection of the constitutional rights and freedoms of men and women; a worthy quality and standard of living for citizens; the sovereignty, territorial integrity and stable socioeconomic development of the Russian Federation; and the defense and security of the state. ¹⁹³

¹⁹⁰ Unattributed article, "Expert. Information War has Become One of the Main Threats to Russian Security," *RIA Novosti*, 6 December 2016.

¹⁹¹ Ibid.

¹⁹² Ibid.

¹⁹³ "Information Security Doctrine of the Russian Federation," *President of Russia Website*, Edict No. 646, dated 5 December 2016.

There were several other terms of importance. National interests in the information sphere are the objectively meaningful requirements of individuals, society, and the state for ensuring security and stable development, specifically as they relate to the information sphere. Threats are factors that create or inflict damage to national interests in the information sphere. Means to ensure information security include legal, organizational, technical, and other assets used by forces. Information infrastructure is the aggregate of information facilities, systems, sites on the Internet, and communication networks on Russia's territory or those territories under the RF's jurisdiction.

The forces required to enforce information security are listed as state organizations (and their units and responsible individuals). RF legislation authorizes agencies of local self-governments and other organizations to resolve information security tasks as well. Means to ensure information security include legal, organizational, technical, and other assets used by information security forces.

With regard to specific terms, forms of the word "ensure" were used 81 times. "Threats" were noted 21 times, "information sphere" 16 times, "infrastructure" 15 times, "interest" and "stability" 11 times each, "goals" 10 times, "sovereignty" and "integrity" 9 times each, "information space" 6 times, "tasks" 7 times, and forms of the word "control" 7 times. There was 1 use of the term "trend" and 4 uses of the term "forecast."

National interests in the information sphere included five points: securing and protecting the constitutional rights and freedoms of men and women relating to information; ensuring stable an malfunction-free functioning of the information infrastructure; developing technologies and the electronic branches of industry; providing the Russian and international public valid information relating to the state policies of the RF regarding socially significant events; and promoting the formation of an international information security system aimed at countering threats that upset strategic stability, strengthening partnership with equal rights, and protecting RF sovereignty in information space.

Information technologies are producing new threats. Now, geopolitical goals can be achieved via trans-border exchanges of information that damage security and upset strategic stability. Some countries use technical attacks on information infrastructure for military purposes. Technical intelligence methods are being strengthened and the assets of intelligence services for conducting information and psychological operations aimed at destabilizing internal political and social situations are expanding. This undermines the sovereignty and violates territorial integrity of other states. A noticeable trend is the increase in the volume of material in foreign mass media that contain prejudicial assessments of the RF's state policies. Russian journalists are not permitted to perform their professional activities. Various terrorist and extremist organizations use information warfare mechanisms, and computer crime is growing.

The five initiatives for ensuring information security in the defense arena are strategic deterrence and the prevention of military conflicts due to the use of information technologies; improving the system of information security, to include information warfare forces and assets; forecasting, detecting, and evaluating information threats; protecting RF interests in information space; and neutralizing information and psychological attacks. There are ten initiatives for ensuring information security in the state and public security. Some are deigned to preclude foreign control of the RF's facilities and transmissions over networks. Others include countering propaganda of extremist ideologies; suppressing activities that damage national security, increasing the security of critical information infrastructures; securing command and control systems, preventing violations of the law; protecting information with state secrets; improving methods and means to secure products; increasing the effectiveness of implementing state policies; and neutralizing information operations directed at eroding traditional spiritual and moral values.

Economic initiatives in the information sphere are developing information technologies, eliminating Russian's dependency on foreign information technologies, increasing competitiveness among Russian companies, and developing a domestic competitive electronic component. Science, technology, and education initiatives in the

information sphere include developing science and engineering capabilities, creating technologies resistant to attacks, creating advanced information technologies, developing human resources in the information security field, and protecting citizens from information threats.

A strategic goal is to ensure the formation of a stable system of conflict-free inter-state relations in information space. Initiatives include defending Russia's information sovereignty, ensuring effective counteractions to another country's use of technologies that are inconsistent with international law, creating legal mechanisms to prevent and control inter-state conflicts, ensuring cooperation equal under the law, and developing a system for managing the Russian segment of the Internet.

Information security is ensured when legislative, legal, law enforcement, judicial, oversight, and other forms of activity of state organizations are combined. This requires joint work among the State Duma, Federation Council, Central Bank, Military Industrial Commission, and other executive and interdepartmental organizations created by the president and government. System participants also include the mass media and mass communication organizations, organizations conducting activities that create and operate information systems, and organizations involved in ensuring information security. State organization tasks include improving the forms and methods of interaction among forces ready to ensure information security. Vertical lines of control and centralization must be strengthened and analytic and scientific and technical aspects improved.

A principle of state organizations is that they must observe a balance between citizen requirements for a free exchange of information and the limitations that are associated with the need to ensure national security, including information sphere security. A sufficient number of forces and assets will be determined by monitoring information threats. The acknowledged principles and norms of international law and treaties must also be observed. Information security tasks include ensuring the protection of the rights and legal interests of citizens and organizations,

forecasting and detecting information threats, and evaluating the effectiveness of measures designed to ensure information security.

The closing paragraph of the doctrine noted that it is being executed based on "branch strategic planning documents" of the RF. The Russian Security Council will develop a list of priority initiatives for ensuring information security that will take "the provisions of the strategic forecast of the RF into consideration."

The STDS and CRFP: What Should Be Followed Closely

As noted above, the actual texts of both the *STDS* and *CRFP* have not been released as this study goes to print. Therefore the short analysis below relies only on press releases about the documents.

Putin convened a meeting of the Council of Science and Education in late November to discuss the draft *STDS*. He noted it is equal in status to the *NSS*. The purpose, he noted, is to develop new knowledge while continuing to spend on fundamental science as a share of GDP, establish a strong technology base that supports rapid economic growth, allocate funds to teams based on a competitive basis, and organize a modern system for managing S&T developments to exclude duplication of effort. Putin added that the number of researchers under the age of 40 has increased by a third over the past ten years, which is an encouraging sign. ¹⁹⁴

Presidential aide Andrey Fursenko spoke next and called for a research and technology development governance system that would be up to the task. He defined the *STDS* in the following way:

The Strategy is a framework document defining the objectives, the main principles, areas, stages and anticipated results of developing science and technology. Importantly, the document provides for the possibility of

¹⁹⁴ President of Russia Website, (in English), 23 November 2016.

adjusting and implementing national policy in this area and formulates specific mechanisms for doing so. 195

Fursenko suggested bringing the level of funding up to two percent of the GDP and accelerating the growth of private investment, since at the moment state investment amounts to nearly 80 percent of research funding. 196

Vladimir Fortov, the President of the Russian Academy of Sciences, was the next speaker. He stated that 20 various research concepts, views, and forecasts have been prepared for the Strategy. He recommended against a super-centralized organization model for research, suggesting instead a multi-channel financing model. He was not overly happy with reform measures, noting that the size of the bureaucracy has grown and bogged scientists down. ¹⁹⁷

Dmitry Peskov of the Agency for Strategic Initiatives stated that the Strategy is a foundation for supplying Russian companies with competitive advantages in new markets. He sees three external challenges outside of funding: the digital economy; new biology, which is confronting a new philosophy of nature; and (Peskov did not directly identify a third wave) different models for organizing labor, research, and sales. Companies such as China's Alibaba offer a digital platform that sells goods and creates competitive advantages many times higher than Russia's. Start-ups such as Uber undermine Russia's traditional markets. He stated that to respond to these challenges "the answer lies in a blend of fundamental research, market technologies, and fundamental, future-looking values." 198

Moscow State University (MSU) Rector Viktor Sadovnichy stressed the importance of two things. First, it is imperative that Russia not fall behind in the chase to use Big Data. He recommended that a

¹⁹⁶ Ibid.

¹⁹⁵ Ibid.

¹⁹⁷ Ibid.

¹⁹⁸ Ibid.

civilian supercomputing center be built (to complement a Supercomputer Technology Center, which he said "probably already exists"), and that MSU could increase the capacity of its computer to the exaflop level. Second, it is necessary to keep young researchers at home. MSU has created laboratories for talented young people between 25 and 27. This civilian recommendation seems to lag behind what has already been built in the military, where at least eleven so-called science companies were developed to offer young talented recruits a chance to study with senior analysts and help prepare new equipment for electronic warfare and cyber, artillery, and other forces.

Initially, explanations of Russia's new *CRFP* were purely descriptive. *RIA Novosti* listed many of the main points of the document, breaking them down into categories covering the USA, NATO, the EU, terrorism, the Middle East and Afghanistan, the Asia-Pacific, the Arctic and Antarctica, and a final category that included the United Nations, an arms race in space, the media, and information security. Follow-on commentaries focused on specific issues in the *CRFP*, such as the call for a political settlement in Syria, how NATO has violated the principle of equal security, the necessity of maintaining the UN's Article 51 (right of self-defense) in light of terrorism and proliferation of weapons of mass destruction, how the growth of force factors is undermining strategic stability, and how soft power tools have grown in importance. ²⁰¹

One *Interfax* report on the *CRFP* was, from a US point of view, hypocritical to say the least. It quoted the document and noted that Russia would fight against military interventions that violate the sovereignty of states. The report notes that Russia "intends to prevent the carrying out, under the pretext of implementing the 'responsibility to protect' concept, of military interventions and other forms of outside

¹⁹⁹ Ibid.

²⁰⁰ RIA Novosti, 1 December 2016.

²⁰¹ See, for example, numerous reports from *Interfax* (in English), 1 December 2016.

interference..."²⁰² Yet this was exactly what Russia has done in Crimea and Eastern Ukraine.

Two reports were particularly negative about the new *CRFP*. A *Moscow Times* article stated that the concept emphasizes a growing Kremlin willingness to use force in order to achieve its goals. Russia's policies will develop according to the situation and will react to or preempt moves by other players. The focus is on projecting Russia's status as a key decision-maker, and this has become the "most important strategic driver of Russian foreign policy." The article states that a radical innovation in Russia's foreign policy has appeared, that being the recognition that military force can help achieve strategic foreign policy objectives. Force helped stop NATO's enlargement in Ukraine, for example, after other foreign policy tools failed. Finally the *CRFP* indicates that Russia wants few constraints on its international actions. ²⁰⁴

Another article noted that the *ISD* and *CRFP* indicate that international ties and the information sphere are areas of alarm and danger, and both represent a battlefield between the West and alternative centers of power and influence. The article stated that this is "conservatism squared, and then multiplied by a confrontational worldview." Russia's citizens seem to have been ignored. These documents are not designed to offer new technologies to raise citizens' living standards, but rather to prevent the West from using Russian deficiencies for pressure or blackmail. Security concepts call on the country to be closed and distrustful toward the whole world, responses which hail from the Soviet past. ²⁰⁶

²⁰² Interfax (in English, 1421 GMT), 1 December 2016.

²⁰³ Vladimir Frolov, no title provided, *The Moscow Times Online* (in English), 6 December 2016.

²⁰⁴ Ibid.

²⁰⁵ Editorial, "Security Council as Think Tank. Structure That Thinks in Categories of Last Century Responding to Challenges of a New Century," *Nezavisimaya Gazeta Online*, 8 December 2016.

²⁰⁶ Ibid.

An Assessment

In November Security Council Secretary Nikolay Patrushev offered that, in spite of the challenges and threats to Russia, the nation is consistently working to realize its vision of global security. Russia's main objective is to ensure its interests, to create conditions for socioeconomic development, to strengthen and protect its sovereignty and constitutional order; and to work with the US, based on equal rights and mutual respect of each other's interests. ²⁰⁷

Putin's emphasis on strengthening the nation's strategic interests has resulted in significant progress in several areas in 2016 [note: items in bold and in brackets indicate things that, in this author's opinion, have been accomplished]:

- Strengthening the country's defense, ensuring the inviolability of the Russian Federation's constitutional order, sovereignty, independence, and national and territorial integrity [Russia has been able to test numerous weapons and implement lessons learned in Syria regarding deployments, mobilization potential, and especially aerospace and naval capabilities; one thing Russia has not accomplished but continues to try to do is to keep ISIS out of Russia's soft underbelly in the North Caucasus and preserve its territorial integrity]
- Strengthening national accord, political and social stability, developing democratic institutions, and refining the mechanisms for cooperation between the state and civil society [national accord remains strong for continued Russian actions in Syria, as witnessed by Putin's strong following; during Kavkaz-2016, the military's National Defense Management Center was exercised accordingly as the

²⁰⁷ Interview with Nikolay Patrushev, "Nikolay Patrushev: US Missile Defense Can Destroy Facilities on the Ground," *RIA Novosti*, 1 November 2016.

military provided control over civilian entities during the exercise scenario. The latter was designed for actions to take if a state of emergency is declared in Russia's Southern District, for example, if ISIS gains a foothold there]

- Preserving and developing culture and traditional Russian spiritual and moral values [Russia's traditional support of Syrian President Assad and its traditional and long-standing Middle East policy remain intact, along with well scripted geopolitical moves in the area supporting Iranian and Hezbollah capabilities; Assad stated that Russia was asked to participate in Syria due to its morals. He noted that this meant Russia is there to destroy terrorism, not because it wants something in exchange]
- Consolidating the RF's status as a leading world power, whose actions are aimed at maintaining strategic stability and mutually beneficial partnerships in a polycentric world. [Russian actions in Syria and Ukraine, in the eyes of many nations, have enabled it to reclaim much of its old glory as a military power and threat, as witnessed by worries all over Europe as to what Russia might do next]

Conclusions

The security environment that these documents project is holistic, taking in culture, values, economics, science, national interests, health, education, and a host of other issues. The overall focus is on the well-documented desire to maintain strategic stability. Overall, many of the issues raised in the *NSS* were discussed piecemeal over the past two

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²⁰⁸ Moscow *President of Russia* website 31 Dec 15, Russian Federation Presidential Edict 683 approving appended text of "The Russian Federation's National Security Strategy."

years. The *NSS* is just the first place they have all been brought together. Many points of the latest version were repeats from the 2009 *NSS*.

The NSS presents concern over the state of international relations between Russia and the West, while relations with the East, especially China and India, are listed with more enthusiasm for their continued cooperative ventures. Still, the document offers openings for potential areas of cooperation with both NATO and the US. It is not known if Russia's offer of some conciliation is designed to find a way to reduce the sanctions that were imposed on the nation after its acquisition of Crimea and intervention into Eastern Ukraine. It is doubtful that this is a sincere offer to change its behavior; rather the goal would be US acquiescence. It is clear that those speaking after the document's release underlined this point of potential cooperation repeatedly, but gave no indication of the rationale behind it.

Domestically there is concern over the potential impact that economic and national security threats present to Russia. Suggested ways to get out of the current morass are listed. There is also a list of indicators to allow people to evaluate the current state of national security in Russia and thus whether it is making progress in its desire to protect national security. The Kremlin appears to see the *NSS* as a roadmap that outlines the important aspects for shaping domestic and international policy, as well as the interaction between national security and socio-economic affairs. The *NSS* makes clear that Russia is blameless for the consternation in the international community that it caused with regard to Ukraine, such as the fact that NATO is now near Russia's borders (which it was not before the events of 2014 in Crimea and Eastern Ukraine).

It is apparent that not everyone is happy with the document, most likely due to the current shape of the economy. For example, a report in *Vedomosti Online* (Business Online) indicated concern in that community. On 20 January the site noted that "practically all of Russia's top officials except maybe for the President have admitted that the economy is in a severe crisis." Further, the article notes that "the authors fail to notice that the economy is closed off and shrunken, including as a

result of the policy of 'protection of the country's interests', by cutting itself off from world trade, finances, and technological competition." ²⁰⁹

To help ensure economic stability in the coming years, the NSS notes that a series of areas are considered "off limits" to foreign governments, such as Russia's national interests and stakes in specific geopolitical property, in particular, the Arctic. These warnings are made quite clear in the document. It is also off limits to allow intrusions into Russia's domestic propaganda apparatus as well, since, in the Kremlin's view, the impact of foreign information and communication systems on the population may threaten regime survival. The document places blame on nongovernmental organizations and individuals for upending stability in Russia as well. State-owned TV and other media outlets, assisted by FSB control of the Internet, are ways to ensure information security.

Through the publication of the *NSS*, Russia has demonstrated a mixture of some realism, such as a discussion of the threats to the nation, alongside excuses for their current situation, such as failing to admit or take into consideration the effect of its actions, which have produced the new threats on its borders. Russia wants a return to great power status, and the Kremlin sees energy resources and military power as two of the most important paths to glory, along with developing more creative and innovative theorists.

While the *NSS* is an important document, Putin's January announcement on S&T issues may be even more important. He stated that a strategy on S&T issues is crucial for a state to maintain its sovereignty and territorial integrity, and one will be ready in the fall (2017). International prestige and power projection capabilities come from a good S&T strategy that offers high-tech methods to counter threats from within and without. The sum total of information control, military modernization, energy security, and S&T advances can also be read as the Putin entourage's method of guaranteeing regime survival.

²⁰⁹ Pavel Aptekar and Andrey Sinitsy, "Sacred Security Strategy: Special Services Refine Document That is Increasingly Disconnected from Reality," *Vedomosti Online* (*Business Online*), 20 January 2016.

The regime wants the population to focus on what it is doing for it, not what it has done to it.

Finally, if one were to summarize Russia's NSS, it would be impractical not to mention what Russia really is after: strategic stability, a balance of forces, equal security, and the ability to maintain its deterrence potential in order to guarantee the nation's sovereignty and territorial integrity. These are all talking points stressed in the NSS. They also represent a lexicon through which the West can engage Russia, since the latter is willing to talk. However, Russian authorities have a responsibility too-to admit its guilt in the creation of the current situation on its borders. Areas where the West erred were duly noted, but Russia refuses to admit its role as it tries to fool the international community. The downing of MH17 is but one example. Equal security also requires equal responsibility when mistakes are made. The Kremlin's unwillingness to acknowledge its mistakes and continued propaganda that it was the West alone that worsened the international situation, makes engagement with the country all the more difficult for the US.

PART TWO



Image attribution: The Imperial Cannon (Tsar Pushka) in Moscow Kremlin, Public Domain, 22 August 2005, https://commons.wikimedia.org/wiki/%D0%9C%D0%BE%D1%81%D0%BA%D0%B2%D0%B0#/media/File:Tsar_Pushka_2005.jpg

CHAPTER FIVE: RUSSIA'S METHODOLOGICAL CONTROL OVER FUTURE WAR PLANNING: THE THEORY

Future wars will be launched by electronic warfare forces, which protect friendly forces, block foreign propaganda disinformation, and strike at enemy EW forces and assets; they blend with strategic operations of the armed forces and with aerospace operations, augmented by cruise missiles, and reconnaissance 'outfits (UAVs, robots)' delivering strikes and fires; strategic goals in future wars require that information superiority is assured over the enemy; Russia should look out for new-type wars (hybrid), including those actions to influence the behavior of the armed forces of Russia or to instigate internal tensions in society. 210

Introduction

Over time, specific elements of Russian military thought have evolved, which offer Defense Ministry planners a way to consider future war scenarios in a methodological manner and thus create an assertion of control over the evolving military environment. The analysis informs force structure and advises when and how to apply power or, more recently, utilize nonmilitary methods. Overall, the process seems logical. It is difficult to pinpoint a similar US process.

The Russian military's well-constructed prism of thought is used to predict or respond to potential conflict. Like most analyses, it also contains a historical aspect that relies on the close examination of actual combat experience, whether domestically generated (Afghanistan, Chechnya, Syria) or through the study of how foreign powers or coalitions (US, Great Britain, NATO) have used military capabilities.

S. G. Chekinov and S. A. Bogdanov, "A Forecast of Future Wars: Meditation on What They Will Look Like," *Voennaya Mysl'* (*Military Thought*), No. 10, 2015, p. 45.

The essence of the construct or prism stems from Soviet, and now Russian, reliance on what appears to be a five-step process, which has apparently remained intact over the years. First, there is a need to recognize key aspects of the trends in the evolving character of warfare, such as the growing importance of nonmilitary methods (diplomacy, deterrence, etc.) and the continued application of advances in science and technology that offer new and innovative ways to achieve superiority. A trend of special interest is developments in science and technology with military applications.

Second, based on this analysis, forecasts are made of the ways that warfare may be conducted in the future. Forecasts are predictive but also continually evolving, as one should expect, as trends change, resulting in new constructs. There appears to be a strong mathematical process involved in forecasting, if Russian sources are to be believed. For example, in a 1975 Russian book on forecasting there is a chapter titled, "Mathematical Forecasting." Forecasts also influence how the initial period of war is to be understood, that is, which weapons and strategies will be unleashed.

Third, based on trends and forecasts, military strategy is formulated to contest these findings and prognostications. An assessment of developing the appropriate correlation of forces along strategic axes is considered.

Fourth, forms (organizational constructs, such as cyber or Special Forces units with specific missions) and methods (various types of weaponry that new science and technology advancements produce; and the appropriate military art [principles of warfare, the appropriate patterns of maneuver, asymmetric thought, reflexive control initiatives, etc.]) are developed and applied to the situation. Adjustments to the COFM are then made as a result of this analysis.

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²¹¹ Yu. V. Chuyev and Yu. B. Mikhaylov, *Forecasting in Military Affairs*, Military Publishers, Ministry of Defense of the USSR, Moscow, 1975, p. 279.

Finally, an operational concept is developed and thinking begins on establishing a correlation of forces and means (COFM) for operational art, a procedure that ensures a strategic advantage for Russia in important sectors and axes, while also supporting the forecasted construct.

It is important to note that the process is dynamic and continually evolving. For example, even after COFM and forms and methods decisions have been made, new discoveries in trends can cause changes to the first two. An outline in graphic form of the five-step process is located at the end of this chapter.

Contemporary Russian Thought

The more experience-based aspect of Russian military thought involves studying both domestic and foreign experience for lessons learned. This experience is added to the five-step process as needed. For example, internationally there was a close analysis conducted of all US military actions over the past 25 years. Yugoslavia, Kosovo, Iraq, Afghanistan, and other conflicts were all closely studied, with appropriate lessons extracted. Some (such as the standoff actions of NATO that involved air power but not ground power) were applied domestically, in particular during the second war with Chechnya that began in late 1999. Syria, on the other hand, not only had a Kosovo corollary (no Russian use of ground power), but also offered a chance to test weaponry and aerospace capabilities outside of a training area.

Perhaps most important of all, when taken as a whole, these two aspects result in the application of a military logic that fits the circumstances and results in a strategy. This is the most important aspect of military art. It might be surmised, then, that the dynamic and continuous interaction of the elements results in the development of a strategy. The idea that the process results in a logic fitting the circumstances coincides with a definition of strategy that Russia's Chief of the General Staff Valery Gerasimov noted: "each conflict has a logic all its own." The elements of military thought evolve into a peculiar logic consistent with the circumstances that various geopolitical situations present.

These two aspects of military thought have resulted in various strategic and operational developments through the years due to their comprehensive and creative input. In the 1980s Russian thought was highlighted by the development of Marshall Ogarkov's use of operational maneuver groups (operativnaya manevrennaya gruppa or OMG), thinking assisted with strong input from General of the Army Makhmut Gareev (Russians noted after Ogarkov's passing that OMG meant, in Russian, the Operativnaya Myshleniye [thought] Gareeva). Gareev, now in his 90s, still advises Russian military leaders. In the 1990s Major General Vladimir Slipchenko wrote on so-called sixth generation warfare and planetary warfare, which described war's changing character from one generation of weaponry to the next. Such thinking is creative and on a par with that conducted in other nations. For example, Chinese thought in the late 1990s included Slipchenko's look at the theory of unrestricted warfare. The turn of the century and beyond has witnessed many other Russian theorists developing these topics further, from indirect and asymmetric input to such thoughts as newgeneration and new-type warfare, all of which are discussed in more detail below.

Gerasimov provided an excellent example of the contemporary use of Russian military thought in December 2016. During an interview on *Rossiya 24 Television*, he noted that NATO had no grounds for concern over Russia's deployment of new units (three divisions) a few hundred kilometers from the alliance's eastern borders [the divisions are a COFM adjustment]. This was due to NATO's "destructive, provocative character" [which totally ignored the numerous Russian incursions into Baltic and Scandinavian airspace over the preceding months that had caused NATO concern]. A few days earlier Russian Foreign Minister Sergey Lavrov had noted that NATO's deployments [a few battalions] near Russia were disproportionate to the threat. [Hardly, it seems, in light of Russia's deployment of three divisions.] Gerasimov went on to add how many new pieces of equipment (5,500) had been added to the Russian force, to include 300 new and 500 modernized tanks and armored vehicles, which appeared to be a bit of information deterrence

²¹² Rossiya 24 Television, 15 December 2016.

directed at NATO. He stated that modern methods of fighting were a training priority during the year and summarized his interview in the following manner:

This year, the armed forces have attained a higher quality of inter-service cooperation. The increase in training of personnel has been achieved thanks to the application of modern domestic and foreign experience and the practical mastery of new forms and methods of combat activity by the forces ²¹³

Thus, in this short interview, he made a reference to the COFM and he directly referenced combat experience, forms and methods, and types of equipment and modern ways of fighting, not to mention that the improvements were based on the trends and forecasting he envisioned.

There are two important lessons that US analysts, military advisors, and military planners should take whenever they examine Russian military thought. First, as in any sports endeavor, teams work against the offensive and defensive setups of their future opponent in practice. In international affairs, one must understand how a future opponent thinks and organizes or the intellectual confrontation and perhaps the initiative and the next battle will be lost. Whether it be Russian military thought patterns or those of ISIS, it is important to comprehend what to expect from an opponent. Second, potential opponents look at confrontations differently than the US does. As a result a creative US analyst (advisor, and/or planner) may find new and innovative ways to consider the application of power by studying other militaries. These two advantages of studying the "red pen" must always be addressed as opponents are either sized up or when looking for new avenues of thought.

The following chapter takes a look at the four basic elements of Russian military thought. The terms "forecasting," "correlation of forces," and, most often, the "forms and methods" of warfare continue to

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²¹³ Ibid.

appear in the speeches of important officers, such as Chief of the General Staff Gerasimov. They are defined and discussed below.

Trends and Forecasting

In the 21st century three significant trends in the "nature of armed struggle" ²¹⁴ are, the shift toward aerospace (longer range, greater power and accuracy, possibility of consecutive and simultaneous attacks across the entire theater of operations by piloted and pilotless aerial vehicles);²¹⁵ the move from positional confrontations to the evolution of exchanging of fire from a distance (PGMs, etc.), with critical infrastructure (control, economic, and logistic systems) targeting priorities along with air defense systems, airfields, and aircraft as key objectives in the initial phase of war; manpower is not a priority target; 216 and the role played by information superiority, specialoperations forces, and EW (to disorganize control); network centric methods used to control actions, which are characterized by increased operational speed and efficiency. ²¹⁷ Perhaps even more important, Chief of the General Staff Valeriy Gerasimov's 2013 speech included trends (tendencies) in the title of his presentation, indicating its importance as the start point for making any analysis of the international military situation.

In a 1975 Russian book on forecasting, *Forecasting and Military Affairs*, ²¹⁸ authors Yu. V. Chuyev and Yu. B. Mikhaylov stated that a forecast "was what may occur," while a plan was defined as "what is supposed to occur." Forecasting was more specifically defined as "the

²¹⁴ S. V. Kuralenko, "Tendencies in the Changing Character of Armed Struggles in Military Conflicts in the First Half of the 21st Century," *Voennaya Mysl'* (*Military Thought*), No. 11 2012, pp. 40-46.

²¹⁵ Ibid., p. 41.

²¹⁶ Ibid., p. 43.

²¹⁷ Ibid.

²¹⁸ Yu. V. Chuyev and Yu. B. Mikhaylov, *Forecasting in Military Affairs*, Moscow 1975, translated into English by the DGIS Multilingual Section, Secretary of State Department, Ottawa Canada, Published under the auspices of the United States Air Force. Words in brackets are this authors, not those of Chuyev and Mikhaylov. ²¹⁹ Ibid., p. 6.

study of the military-political situation, the pattern of future war, the prospects of developing strategy, operational art, and tactics [methods], the qualitative and quantitative composition of the means of armed conflict (one's own and the enemy's [COFM]), the prospects for the development of the war economy in the future, and also the forecasting of the enemy's strategic and tactical plans."²²⁰ Four types of military forecasting were described. They were military-strategic, operational-tactical, military-economic, and military-technical.

Military-strategic forecasting was said to examine the "character of a war" under certain conditions determined by a variety of input data. 221 It looks at the character and means of conducting future wars that may occur. A forecast is made of objectives, missions, plans, and the composition of the Armed Forces of friendly and enemy countries [COFM]. In 2013, to demonstrate the continuity of this term in military affairs, in an article in Voenno-Promyshlennyi Kur'er (VPK), Gerasimov noted that "each war has a unique logic all its own,"222 which closely approximates the 1975 idea of examining the character of war under "certain conditions determined by a variety of input data." Chuyev and Mikhailov defined military-economic and military-technical forecasting (operational-tactical forecasting will not be covered) in the following Military-economic forecasting is "inseparable from the forecasting of the economy of the entire country (or even a number of countries linked by common aims and problems), and is inextricably bound up with all divisions of the military forecasting system..."223 "Data" for military-economic forecasting are provided by militarystrategic forecasting, which provides information on the possible nature of armed conflict, as well as the potential and the projected scale of the effect of the use of the Armed Forces on the economy. Military-technical forecasting provides information about the potential characteristics of

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²²⁰ Ibid., p. 14.

²²¹ Ibid., p. 17.

²²² Valery Gerasimov, "The Value of Science is in Foresight: New Challenges Demand Rethinking the Forms and Methods of Carrying out Combat Operations," *Voyenno-Promyshlennyy Kuryer Online (Military-Industrial Courier Online)*, 26 February 2013. This source was used before the actual speech of Gerasimov was received by FMSO. ²²³ Chuyev and Mikhaylov, pp. 17, 19.

models of weapons and military equipment, and the prospects for development of particular weapon types and systems [methods].²²⁴ Further, there are short-term (precise, detailed, 5 years), medium-term (5-10 years), and long-term (vectors, general directions, over 10 years) types of forecasting.²²⁵

This explanation of forecasting makes one consider what might be termed "strategic-technical" forecasting. In the past, Lenin and Engels used to state on occasion that technology determines tactics. In this day, with rapid advancements in technology and Russia's focus on new issues like planetary theaters of war, it would be fair to assert that now "technology determines strategy," since technical developments (satellites, reconnaissance-strike complexes, etc.) can now significantly influence strategic thought and ways to attack an opponent. New technologies continue to complicate assessments of future war, requiring that they be reexamined more often than in the past.

Military authors S. G. Chekinov and S. A. Bogdanov, who are two of Russia's most popular military authors, offered examples of short- and long-term forecasting. They noted that short-term forecasts envision future wars as launched by EW forces [forms], which will protect friendly forces, block foreign propaganda, disinformation, and strike at enemy EW forces and assets. They will blend with strategic and aerospace operations, with the latter augmented by cruise missiles and reconnaissance "outfits (UAVs, robots)" delivering strikes and fires. Many of these assets are available today. Long-term forecasts predict that strategic goals will not be achieved in future wars unless information superiority is assured over the enemy. 226

Military Strategy

The 1971 Officer's Handbook describes strategy as a division of military art that investigates the principles of preparing for and waging

²²⁴ Ibid., p. 19.

²²⁵ Ibid., p. 14.

²²⁶ S. G. Chekinov and S. A. Bogdanov, "A Forecast of Future Wars: Meditation on What They Will Look Like," *Voennaya Mysl'* (*Military Thought*), No. 10, 2015, pp. 45.

war as a whole, as well as its campaigns. It is a direct instrument of politics, and is common to all branches of the country's services within the framework of a unified military strategy. Strategy has theoretical (principles of war planning, logistical support, troop control, and territorial preparation) and applied (specific questions on the preparation and execution of strategic attack, defense, and other operations) aspects. 227

Strategy is further described as a scientific theory that elaborates the fundamental methods and forms of armed combat on a strategic scale and produces war's guiding principles. Strategy's theory influences military doctrine and, at the same time, strategy implements doctrine directly in the elaboration of war plans and the preparation of the country for war. In wartime, military doctrine drops into the background somewhat, since in armed combat military-political and militarystrategic considerations take the primary lead roles, depending on the specific situation. Consequently, war or armed combat is governed by strategy, not doctrine.²²⁸

The 1983 Soviet Military Encyclopedic Dictionary stated that Soviet military strategy is determined through the policies of the Communist Party of the Soviet Union and exerts an inverse influence on policy.²²⁹ Of course, the Communist Party no longer rules Russia. Military strategy, however, remains interlinked with the country's military doctrine and is defined as follows:

A component part of military art, its highest domain, encompassing theory and the practice of the preparation of a country and its armed forces [AF] for war, the planning and conduct of strategic operations and war as a whole. The theory of military strategy investigates the

²²⁷ S. N. Kozlov, Editor, *The Officer's Handbook*, Ministry of Defense Publishing Company, Moscow, 1971, as published in English by the United States Air Force, 1971, pp. 57-58.

²²⁸ Ibid., p. 65.

²²⁹ N. V. Ogarkov, Main Editor, *Voennyy Entsiklopedicheskiy Slovar'* (Military Encyclopedic Dictionary), 1983, Moscow: Military Publishing House, p. 711.

patterns, mechanisms, and nature of war, the modes and methods of its conduct. It formulates the theoretical principles of planning as well as the preparation for and conduct of strategic operations and war as a whole. ²³⁰

That is, military strategy examines the unfolding nature of war and plans accordingly to formulate the proper planning to confront new trends and tendencies in war's character; and to fulfill forecasts with the proper ingredients. [for a definition of correlation of forces and means, see "operational design" below].

Forms and Methods

Second, the forms and methods used to employ forces hold a significant place in Russian military thought. They are often ignored in the West, perhaps because they appear almost neutral in meaning, if a clear meaning can be surmised. Actually both terms are very important. They have direct relevance as to how the military takes advantage of war's changing nature, as well as how future war might be conducted. Gerasimov mentioned them eleven times in his popular 2013 speech, yet hardly anyone noticed or commented on them.

According to the Russian military encyclopedia, forms of military operations are employed in conformity with the scope or scale of combat. They include operations, engagements, combat, and strikes. They also include combat arms capabilities, the objectives of military operations, and the nature of assigned missions.²³¹ New-generation wars, for example, were forecasted by Chekinov and Bogdanov (and no one else, by the way) to radically alter the character and content of armed struggle in the following manner, with both traditional and nontraditional forms.

Intensive fire strikes against seats of national and military power, and also military and industrial objectives by all arms of the service, and

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²³⁰ Ibid.

²³¹ N. V. Ogarkov, Main Editor, *Voennyy Entsiklopedicheskiy Slovar'* (*Military Encyclopedic Dictionary*), 1983, Moscow: Military Publishing House, p. 782.

employment of military space-based systems, EW forces and weapons, electromagnetic, information, infrasound, and psychotronic effects, corrosive chemical and biological formulations in new-generation wars will erode, to the greatest extent possible, the ability of the adversary's troops and civilian population to resist. It is also expected that **nontraditional forms** of armed struggle will be used to cause earthquakes, typhoons, and heavy rainfall lasting long enough to damage the economy and aggravate the socio-psychological climate in the warring countries. ²³²

A *Military Thought* article in 2008 stated that the meaning of the term "form" describes the organization of the substance of the modes of combat actions. It represents the goal-oriented, organizational (to include command and control aspects), spatial, temporal, and quantitative confines of the Armed Forces' employment. It is the organizational side of troop actions.²³³ EW units fit this criteria, as do combat units of all sorts.

Methods include the aggregate of forms, modern techniques, and procedures employed in a specific logical sequence to achieve effective solutions to problems of military science. This is an applied area of the methodology of military theory and practice. It can be general and thus used for research of any type, or it can be more specific, such as determining the procedure of solving a specific problem. A 2010 *Military Thought* article described methods (ways) as a sequence and technique for employing forces and means to fulfill tasks in an operation. Authors M. G. Valeyev and N. L. Romas, unhappy with this dictionary definition (which they cited from a 1997 *Military Thought* article), defined a method of warfare as a specific way that troops accomplish their mission by employing actions characteristic of a method's essence,

²³² S. G. Chekinov and S. A. Bogdanov, "The Nature and Content of a New–Generation War," *Voennaya Mysl'* (*Military Thought*), No. 10 2013, pp. 13-25.

²³³ O. V. Korol and N. L. Romas, "Form of Military Actions: On the Meaning of the Category," *Voyennaya Mysl'* (*Military Thought*), from Vol. 3 2008 of the Eastview publication *Military Thought: A Russian Journal of Military Theory and Strategy*, pp. 149-153 (in English).

²³⁴ Ogarkov, p. 440.

combination of processes, techniques, and rules of their use.²³⁵ For example, a technique might be to take an opponent by surprise. Analysis suggests that troop armaments (that is, weaponry's development) and the principles of military art (which could be simultaneous or consecutive actions involving strategy, operational art, or tactics) have the greatest impact on methods.²³⁶

Thus, the somewhat benign-sounding terms "forms and methods" of actions are actually very important, for they relate to the manner in which future wars may be conducted. Specific issues, such as the manner in which disinformation, the principles of war, the use of cunning, and other military actions, can be found therein. Forms and methods also include nonmilitary, indirect, and asymmetric methods. Gerasimov pointed this out in his 2013 article, which listed both traditional forms and methods and what he called "new" forms and methods. During a November 2016 General Staff Academy lecture series to Southern Military District officers, several lectures were delivered on the "forms and methods of employing troops and organizing work when conducting combat operations."237 Defense Minister Sergey Shoygu, speaking at an education conference in November, noted that training assumes special importance "under conditions of large-scale Army and Navy rearmament and development of new forms and methods of combat operations."238 Clearly, forms and methods are key indicators as to how future war will be organized and perhaps even conducted.

Operational Concept/Design and the COFM

A final element of traditional Russian military thought is the integration of operational design and COFM. The operational design or

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²³⁵ M. G. Valeyev and N. L. Romas, "Choosing Methods of Warfare," *Voennaya Mysl'* (*Military Thought*), No. 6 2010, p. 4.

²³⁶ Ibid., p. 5, 6, 8.

²³⁷ Southern Military District Press Service, "Representatives of General Staff Military Academy Participate in Training Officers of the Southern Military District Command and Control Organs," *Ministry of Defense of the Russian Federation website*, 24 November 2016.

²³⁸ No author provided, "Shoygu Told about the Role of Military Education under Rearmament Conditions," *RIA Novosti*, 23 November 2016.

concept results from an assessment of the changing character of war, forecasts of its potential appearance, and the forms and methods of employing a force against forecasted threats, particularly during the initial period of war. An operational concept or design (*zamysel operatsii*) is defined in the following manner:

A broad outline of forthcoming combat operations. It includes: direction or axis of the main attack and other thrusts (area of concentration of main efforts); sequence and modes of accomplishing the adversary's defeat; procedure of delivery of fire for effect and, in a nuclear war, nuclear weapons as well; force groupings and tactical order of battle (disposition).²³⁹

A related term is the operation plan (reshenie na operatsiyu). It is defined as follows:

The manner, procedure, modes and methods of accomplishing an assigned mission as specified by a commander. It includes the concept of operations (commander's concept), missions assigned to the troops (forces), fundamentals of teamwork and coordination, support, and the organization of command and control. The operation plan (battle plan) is the basis of command and control of troops (forces). It is made as a result of mission briefings and estimates of the situation. ²⁴⁰

The resulting operational concept or design includes an assessment of where to place forces along which strategic axes, that is, how to employ a correlation of forces that offers Russian forces the advantage they desire, whether it be for victory or just survival if confronted by a superior force.

²³⁹ N. V. Ogarkov, Main Editor, *Voennyy Entsiklopedicheskiy Slovar'* (*Military Encyclopedic Dictionary*), 1983, Moscow: Military Publishing House, p. 264. ²⁴⁰ Ibid., p. 634.

In 1984, in an article in *Military Thought*, author N. N. Kuznetsov noted that the laws of armed struggle include the dependence of the course and outcome of an armed struggle on the correlation of combat power of the forces of the opposing sides...the dependence of forms and methods of operations on weapons, equipment, and personnel, and the interdependence of the forms and methods of operations being conducted at different levels.²⁴¹ To demonstrate continuity of thought, in 2014 Gerasimov stated that institutes should make a determination of the optimal COFM and means of the Armed Forces of the Russian Federation, their qualitative and quantitative make-up, and the forms and methods of their combat employment.²⁴² Chekinov and Bogdanov, writing in the same year, noted that innovations must be taken into consideration, along with changes in the forms and methods of fighting, and that an improved version of the COF is now used in various calculations of the RF Ministry of Defense research organizations.²⁴³ Thus there is continuity in the use of specific terms.

The *Military Encyclopedic Dictionary* defines the term COF [used here by the following authors instead of COFM] as follows:

An objective indicator of the combat power of opposing forces, which makes it possible to determine the degree of superiority of one force over the other. It is determined by comparing quantitative and qualitative characteristics of subunits, units, combined units, and armaments of friendly and enemy troops (forces). It is calculated on a strategic, operational, and tactical scale throughout an

²⁴¹ N. N. Kuznetsov, "On the Categories and Principles of Soviet Military Strategy," *Voennaya Mysl'* (*Military Thought*), No. 1 1984, p. 34.

²⁴² V. V. Gerasimov, "The Role of the General Staff in the Organization of the Country's Defense in Accordance with the New *Statue on the General Staff*, Approved by the President of the Russian Federation," *Vestnik Akademii Voennykh Nauk (Bulletin of the Academy of Military Science)*, No. 1 2014, pp. 14-22.

²⁴³ S. G. Chekinov and S. A.Bogdanov, "Military Futurology: Its Origin, Development, Role, and Place within Military Science," *Voennaya Mysl'* (*Military Thought*), No. 8 2014, p. 26.

entire area of operations, in the main sector and in other sectors. ²⁴⁴

When developing strategy against a potential adversary, the latter's "political, economic, scientific and technical, military, ideological, demographic, psychological, geographic, and other factors" are considered as part of the correlation of forces, according to a 1968 *Military Thought* article, in order "to uncover intentions, plans, capabilities, concepts, and methods." Strategy requires a continuous reassessment of the capabilities of potential adversaries and results in updated modeling of the COF between nations. Superiority was viewed at the time as nothing but a favorable opportunity. Now information superiority offers more than just opportunity. It offers a chance to capture the initiative in war and thereby control the initial period of war.

A 1969 *Military Thought* article noted that the decisive role in battle is played by the commander's skill, which, in author S. Tyushkevich's assessment, is another aspect of the COF. ²⁴⁶ Tyushkevich added the following: timely logistic deliveries are "most essential" to COF; an effective change in the COF comes about through the offensive; prepare forecasts ahead of time to anticipate events and facilitate corrections to plans; and, in addition to evaluating quantitative and qualitative factors, commanders can uncover hidden factors that have the capability of influencing the COF. ²⁴⁷

With conventional forces, the COF changes slowly. Nuclear weapons obviously can change the COF immediately, according to Tyushkevich. As capabilities change with the addition of high-tech

Military Thought, No. 10, 1968, as translated and printed in Selected Readings from *Military Thought* (in English), Volume 5, Part II, pp. 3-17.

N. V. Ogarkov, Main Editor, *Voennyy Entsiklopedicheskiy Slovar'* (*Military Encyclopedic Dictionary*), 1983, Moscow: Military Publishing House, p. 691.
 V. Sokolovskiy and M. Cherednichenko, "Military Strategy and its Problems," *Military Thought*, No. 10, 1968, as translated and printed in Selected Readings from

²⁴⁶ S. Tyushkevich, "The Methodology for the Correlation of Forces in War," *Military Thought*, No. 6 1969, as translated and printed in *Selected Readings from Military Thought*: 1963-1973 (in English), Volume 5, Part II, pp. 57-71.
²⁴⁷ Tyushkevich.

assets, the COF changes much more quickly and can become dependent on the function of time. The methods and means of using the time factor are interrelated with the element of surprise, which can change the COF quickly when properly employed. A commander's intellectual input can also change the COFM in spite of the more objective quantitative and qualitative factors before him. Objective opportunities are dependent on a commander's ability to see them and employ his subjective analysis. The diagram below offers an image of the thought process:



There are several examples of the COF at work today. For example, three new divisions and a new commander, Lieutenant General A. V. Kartapolov, have moved to the Western Military District. This has dramatically changed the COF. Aleksandr Khramchikhin, Deputy Director of the Institute of Political and Military Analysis, noted that Canadian, Norwegian, and Danish military contingents in the Arctic are

very weak, implying that the COF is in Russia's favor there. He adds that the lack of US Armed Forces in the European Arctic makes it difficult to consider an armored battle in the Arctic ever occurring. Gareev noted in 2010 that now we are dealing with a correlation of direct and indirect actions, while Gerasimov noted in 2013 that there is a correlation of military to nonmilitary actions to consider. In 2014 Gerasimov and the Chekinov and Bogdanov "team" continued to talk about forecasting and the COF.

To summarize there has been continuity in the elements that compose Russian military thought that result in strategies. This continuity for the past 50 years indicates that the process is deterministic according to its elements and varies only based on the type of improvements in weaponry and the military's understanding of the changing character of war.

CHAPTER SIX: RUSSIAN OFFICERS DISCUSS METHODOLOGICAL CONTROL

Introduction

A look at just a few article titles over the past several years indicates the breadth and depth of the research on conflict studies in recent times: "changing trends in armed struggles," "the art of war in the 21st century," "military futurology," "technosphere warfare," and "forecasting future war's nature and content" are but a few of them.

This chapter examines the work of officers who have written on various aspects of the Russian military thought process. Also examined is the way that Russian officers view Western thought processes. For example, when Russian views of trends are discussed, they also wrote on foreign trends as well. Both perspectives are described below.

Learning from Experience

There has always been a Soviet/Russian desire to study lessons learned. For example, no one element of Russian history has received the same attention as the Great Patriotic War (the Soviet Union's participation in World War II). This war, which resulted in a Soviet and allied victory and saved the world from Hitler's Nazism, has long served as the cornerstone rationale for military pride and for increased spending and patriotic values in Soviet and Russian times. Soviet suffering and losses were enormous. However, lessons learned, due to the Soviet penchant for secrecy, came into the open only sporadically through the years and covered "appropriate" topics. Such secrecy made the military pay a price, that being its inability to pay the appropriate respect to many heroic actions and further study the battles in which soldiers lost their lives. ²⁴⁸

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²⁴⁸ This lag in covering sensitive topics (such as Soviet losses) was best signified for Western audiences when a former editor of a respected Russian journal came to visit Fort Leavenworth's Soviet Military Studies Office (now the Foreign Military Studies Office). The officer, a general, was discussing with then-Director David Glantz some of the lessons from World War II that the office was studying. Suddenly the officer began to wipe tears from his eyes. He stated that Americans were studying and paying

In a similar fashion, there was hardly a transparent discussion of Russian actions from 1979-1989 in Afghanistan. It was not until the 1990s that real lessons learned were discussed, when most everything in Russia became more open due to then Russian President Boris Yeltsin's democratic approach to the media. The former blockade on discussing Russian lessons learned did not apply to their impressions of foreign experiences, of course. The Russian military openly discussed numerous aspects of US and coalition actions during Desert Storm. Their dissection of that war allowed the Russian military to realize how far behind it was in the application of military power. This point became painstakingly clear as they entered conflict in Chechnya in December 1994, where they were overwhelmed by Chechen regulars in the opening phases of the conflict. Russia did eventually recover its ability to control Chechnya, and toward the end of the century Russian lessons learned became more transparent. This trend continued until it all but disappeared with Russian support of surrogates (with both troops and weapons) in Eastern Ukraine. Not much more has appeared in regard to Russian actions in Syria. Internally, there is a keen discussion underway of all aspects of the operation. Several lessons appear to have been applied to the recent Kavkaz 2016 exercises, according to Russian sources.

Examining the Thoughts of Important Authors

There are specific individuals (officers in important official positions and well-respected theoretical authors) whose writings discuss the elements of Russian military thought, as well as lessons learned from past wars. Input from these officers differs based on experience, creativity, and authority, but all are worthy of close tracking for not only new or creative input, but also similarities and differences in emphasis. Authorship includes officers associated with the General Staff and influential analysts who write for Russian military journals. The main Russian sources utilized in the discussion below are *Military Thought*, the Military-Industrial Courier (VPK), Red Star, and the Journal of the Academy of Military Science.

homage to Soviet soldiers who had sacrificed their lives for the nation in battles that, at the time, Russians were still not allowed to discuss openly.

Several of the articles in *Military Thought* were the first article in the edition, indicating their importance, and others were either close to the top or put alone in the middle of an edition so that they stood out. Thus, the importance of these concepts was obvious to all in Russia, but perhaps not to foreign analysts to whom table of contents were not available. Few Western analysts have focused to the extent the Russians have on nonmilitary, indirect and asymmetric operations over the past decade. This is understandable, since each nation has its own set of analysts and experts who see things from their own perspective and concepts. For example, in the West the focus has been on hybrid theory, but lately this has shifted to "gray" area studies.

The following summary provides substance to the elements of the Russian thought equation offered above. The categories were expanded just a little and now include: trends or the changing character of war/foreign trends to counter; forecasts/countering foreign forecasts; COFM; forms and methods; key concepts; and results/conclusions.²⁴⁹ Under each category are specific excerpts from Russian military documents that support the category, arranged chronologically.

Trends/Foreign Trends

Trends or the Changing Character of War

Speed, synchronization, and simultaneity are becoming war's new decisive factors; the robots-cyborgs-androids chain reflects the general trajectory of contemporary development...biology is replacing physics and chemistry as a class associated with the means of armed struggle; they can be used to destroy a food base or serve as a virus

²⁴⁹ For a more complete view, see "Thinking Like a Russian Officer" on the FMSO website. For further insights on this author's thoughts on hybrid, new-generation, and new-type warfare, see *The Journal of Slavic Military Studies*, 2016, Vol. 29, No. 4, pp. 554-575.

carrier in the case of animals; this may set off a biological arms race. ²⁵⁰

Nations need to be prepared for local and regional wars and be ready to use or confront indirect actions often fostered by the information struggle; air and space theaters of war are points of concern; high-precision weapons change the nature of hostilities.²⁵¹

The weakening of states is occurring through the use of information, psychological, moral, climatic (causing natural disasters, etc.), and organizational measures;²⁵² psychotronic, biological, and genetic weapons are being developed that do not rely on explosive power.²⁵³

The "significance and weight of nonmilitary measures in confrontations between countries have grown considerably";²⁵⁴ nonmilitary measures are "a combination of purposeful, specific moves in domestic and foreign policies exercised by the state in situations when efforts in actions related to military policy are to be supplemented or superseded";²⁵⁵ nonmilitary measures can be used to prepare and launch wars, erode military power, destroy military systems, and defeat victims of aggression; nonmilitary measures prepare the battlefield through the potential disorganization of the control aspect of an opponent's military and political leadership.

²⁵⁰ V. I. Lutovinov, "The Development and Use of Nonmilitary Measures to Reinforce the Military Security of the Russian Federation," *Voyennaya Mysl'* (*Military Thought*), No. 5 2009, pp. 9-11.

²⁵¹ M. A. Gareev, "On Several Characteristic Aspects of Future War," *Voennaya Mysl'* (*Military Thought*), No. 6, June 2003, pp. 52-59.

²⁵²S. A. Bogdanov and V. N. Gorbunov, "On the Character of Armed Confrontation in the Twenty-First Century," *Voennaya Mysl'* (*Military Thought*), No. 3 2009, p. 8. ²⁵³ Ibid., p. 7.

²⁵⁴ V. I. Lutovinov, "The Development and Use of Nonmilitary Measures to Reinforce the Military Security of the Russian Federation," *Voyennaya Mysl'* (*Military Thought*), No. 5 2009, p. 3.

²⁵⁵ Ibid.

The risk of catastrophic consequences from the use of advanced weaponry presupposes that more nonmilitary measures, to include political, economic, information and other means, should be used to resolve conflict; ²⁵⁶ at times it is not coercive potential that achieves success but the interaction of military and nonmilitary factors. ²⁵⁷ Nonmilitary means of confrontation are the sum of state and social institutions (organizations), political, legal, and economic standards, spiritual values, general-purpose information, and technological systems. ²⁵⁸

Technosphere warfare is better "to achieve war goals by attacking the adversary's automated control systems (ACS)"; this elicits the need for "a concept of an entirely new type of warfare—warfare in an artificial environment—to be added to the theory of military art."²⁵⁹

Future rivalry among nations would be for "spaces" that include control over northern high latitudes, space militarization, and the seas and continental shelves, where the rivalry is being shaped by the development of international legal mechanisms that were jump-started by technological developments, enabling the large-scale development of these spaces. ²⁶⁰

The reduction of a state's military-economic potential by destroying vitally important objects of infrastructure; doing command and control in a uniform information domain; employing precision weapons, using special operations forces, robotic systems, UAVs, and weapons based on new physical principles on a large scale; using

²⁵⁶ S. G. Chekinov and S. A. Bogdanov, "Asymmetric Actions in Support of the Military Security of Russia," *Voennaya Mysl'* (*Military Thought*), No. 3 2010, p. 15. ²⁵⁷ Ibid., p. 17.

²⁵⁸ S. G. Chekinov and S. A. Bogdanov, "The Strategy of the Indirect Approach: Its Impact on Modern Warfare," *Voennaya Mysl'* (*Military Thought*), No. 6 2011, p. 13. ²⁵⁹ Yu. I. Starodubtsev, V. V. Bukharin, and S. S. Semyonov, "Technosphere Warfare," *Voennaya Mysl'* (*Military Thought*), No. 7 2012, pp. 22-31.

²⁶⁰ Andrei Baklanov, "A War of the Future," *Russia in Global Affairs*, Vol. 11, No. 4, October-December 2013, p. 131.

asymmetric and indirect operations and military operations by peacetime force groupings. ²⁶¹

Military actions now include developing mid- and long-range hypersonic air- and sea-based guided missiles; improving algorithms and the technical basis of reconnaissance-strike systems; and increasing the potential of intelligence, command and control, and destruction resources.²⁶²

The nature and substance of future wars will be changed radically by space-based attack weapons; orbiting battle space stations; new weapons of improved destructive power, range, accuracy, and rate of fire; greater capabilities of reconnaissance and robot-controlled assets; automated weapons control; communication; and information warfare systems. ²⁶³

Foreign Trends to Counter

Foreign trends, such as hybrid ones, indicate that changes must be instituted in Russia's organization of defense, to include a set of military and nonmilitary measures to counter hybrid methods of pressure. Such countermeasures include falsifying events and imposing restrictions on the activity of the mass media. They also include countering foreign private military companies, subversive groups, and terrorists ²⁶⁴

²⁶¹ V. V. Gerasimov, "The Role of the General Staff in the Organization of the Country's Defense in Accordance with the New Statute on the General Staff," *Journal of the Academy of Military Science*, No. 1 2014, p. 15.

²⁶² A. V. Kartapolov, "Lessons of Military Conflicts and Prospects for the Development of Means and Methods of Conducting Them, Direct and Indirect Actions in Contemporary International Conflicts," *Vestnik Akademii Voennykh Nauk (Bulletin of the Academy of Military Science)*, No. 2 2015, p. 34.

²⁶³ S. G. Chekinov and S. A. Bogdanov, "A Forecast of Future Wars: Meditation on What They Will Look Like," *Voennaya Mysl'* (*Military Thought*), No. 10, 2015, p. 44. ²⁶⁴ Valery Gerasimov, "The Value of Science is in Foresight: New Challenges Demand Rethinking the Forms and Methods of Carrying out Combat Operations," *Voyenno-Promyshlennyy Kuryer Online* (*Military-Industrial Courier Online*), 26 February 2013.

The Russian perception of US trends includes the latter's use of direct and indirect actions according to a specific scenario, which proceeds as follows. Initially a victim state is chosen and irrefutable proof is provided of a threat in that state. An information campaign is developed that shows there is no alternative to the use of force, and later sanctions are introduced. Coalitions are formed, political pressure is exerted against countries obstructing US policies, and United Nations Security Council permission is sought to use military force. To maintain its world hegemony, the US has conducted "systemic" deterrence operations against Russia; Russia calls such actions "indirect," using a "third force" (described as blocs or countries, transnational companies, separate political forces, international extremist organizations, and so on for whom war is beneficial). 267

Information confrontation campaigns developed by an adversary are designed to disorganize Russia's national development, destroy its sovereignty, and help change a country's rulers. Information effects are equivalent to the use of armed force in some cases. The "color revolution" information effect primarily uses the Internet to influence the consciousness of people. ²⁶⁸

The trend for the US and its allies' use of force is not the physical destruction of the enemy or state infrastructure, but the leadership's subordination to their will. Increasingly its foundation is nonstandard or "hybrid actions," to include both measures of a military nature and those without the use of military force. ²⁶⁹

²⁶⁵ A. V. Kartapolov, "Lessons of Military Conflicts and Prospects for the Development of Means and Methods of Conducting Them, Direct and Indirect Actions in Contemporary International Conflicts," *Vestnik Akademii Voennykh Nauk (Bulletin of the Academy of Military Science)*, No. 2 2015, p. 26.

²⁶⁶ Ibid., p. 28.

²⁶⁷ Ibid., p. 29.

²⁶⁸ Ibid., p. 30.

²⁶⁹ Ibid., p. 29.

Forecasting/Foreign Forecasting

Forecasts of future wars require a skillful combination of military, nonmilitary, and special nonviolent measures using a variety of forms and methods and a blend of political, economic, information, technological, and environmental measures, primarily by taking advantage of information superiority...Forecasting is viewed as an instrument that helps avoid errors in identifying the principal avenues for promoting military art, avoiding paths that lead nowhere, and cutting the costs of maintaining military security. 270

Russian forecasting

Correct forecasts alone can help determine which armed forces and which troops will be required as well as identify the general trends in which the nature of armed struggle is developing.²⁷¹

The characteristics of a future war are uncertain, since a new world order and security system model have not been completed and an ongoing fight for spheres of influence, regional domination, and natural resources continues. Moreover, the final impact of information technologies on warfare is unknown. There appears to be a greater use of artificial intelligence, nanotechnology, robot-controlled and new physical principle weaponry, with some weapons comparable in efficiency to nuclear weapons. The aerospace role will grow significantly, where even the **planet may be a theater of operations.** Automated global network systems will control troops and weapons, and special forces will increasingly be used. 273

²⁷⁰ S. G. Chekinov and S. A. Bogdanov, "A Forecast of Future Wars: Meditation on What They Will Look Like," *Voennaya Mysl'* (*Military Thought*), No. 10, 2015, pp. 44, 49.

²⁷¹ M. A. Gareev, "On Several Characteristic Aspects of Future War," *Voennaya Mysl'* (*Military Thought*), No. 6, June 2003, p. 54.

²⁷² S. A. Bogdanov and V. N. Gorbunov, "On the Character of Armed Confrontation in the Twenty-First Century," *Voennaya Mysl'* (*Military Thought*), No. 3 2009, pp. 2, 11. ²⁷³ Ibid., pp. 5-6.

Russia's main effort will be directed at the destruction of an opponent's unified information space, sources of intelligence, navigation and guidance systems, and communications and command and control systems.²⁷⁴

A new-generation war (NGW) will be fought with fire strikes, electronic strikes, robot-controlled warfare, aerospace and mobile aerial operations, air assaults, information reconnaissance strikes, antireconnaissance and similar operations, and combat and other actions.²⁷⁵ States will try to resolve their interstate problems through every kind of deterrence—by force or peacefully, or by nonmilitary and indirect (asymmetrical) actions.²⁷⁶ Deterring an aggressor by force includes direct threats of attack or powerful defensive deployments, ultimatums regarding the use of nuclear weapons, and information campaigns to mislead adversaries about Russia's readiness to counter aggression.²⁷⁷ The initial period of war (IPW) of NGW may determine a war's outcome if forces seize or destroy key control centers, disrupt an opponent's governmental and armed forces operating procedures, and/or enable attackers to control operations that attempt to disorganize, demoralize, and paralyze opponents. Subversion and provocations will be used against a country's leadership. The length of the IPW depends first and foremost on an attacker's end goals, perhaps lasting between four and six weeks 278

NGW is based on nonmilitary options, mobile joint forces, new information technologies, and the employment of military space-based systems, EW forces and weapons, electromagnetic, information, infrasound, and psychotronic effects, and corrosive chemical and

²⁷⁴ M. A. Gareev, "Strategic Deterrence: Problems and Solutions," *Krasnaya Zvezda (Red Star)*, No. 183, 8 October 2008, p. 8, as downloaded from Eastview.com on 17 March, 2010.

²⁷⁵ S. G. Chekinov and S. A. Bogdanov, "Initial Periods of War and Their Impact on a Country's Preparations for a Future War," *Voennaya Mysl'* (*Military Thought*), No. 11 2012, p. 23.

²⁷⁶ Ibid., p. 26.

²⁷⁷ Ibid., p. 19.

²⁷⁸ Ibid., p. 25.

biological formulations along with nontraditional forms that cause earthquakes, typhoons, and heavy rainfall with the potential to damage the economy or aggravate the socio-psychological climate. New forms and methods of employing joint forces in operations and engagements will evolve. 280

One should expect the development of a set of various forces and means capable of disrupting the normal functioning of the planet's information domain and information assets and means of life support for Earth's inhabitants. NGW may not be at the operational or strategic levels but planetary: planetary aggressors can provoke technogenic catastrophes in large economic regions and sections of the world with information networks and assets. After 2050 ecological weapons may also be developed for directed effects against countries' mineral and biological resources, local areas of a biosphere (atmosphere, hydrosphere, lithosphere), and climate resources. ²⁸¹

The spectrum of tasks before the General Staff is conditioned by the fast-moving character and dynamic employment of military and nonmilitary means coordinated according to time, place, direction, forces, means, and resources. ²⁸² An important task is the forecasting and assessment of military threats. ²⁸³

Two types of forecasting are exploratory and normative prognoses. Exploratory prognoses, the best developed in the military sphere, define trends, directions, and regularities in military processes;

²⁷⁹ S. G. Chekinov and S. A. Bogdanov, "The Nature and Content of a New–Generation War," *Voennaya Mysl'* (*Military Thought*), No. 10 2013, pp. 13-25. ²⁸⁰ Ibid., p. 17.

²⁸¹ V. Slipchenko, "Information Resources and Information Confrontation: their Evolution, Role, and Place in Future War," *Armeyskiy Sbornik (Army Journal)*, No. 10 2013, p. 53.

²⁸² V. V. Gerasimov, "The Role of the General Staff in the Organization of the Country's Defense in Accordance with the New *Statue on the General Staff*, Approved by the President of the Russian Federation," *Vestnik Akademii Voennykh Nauk (Bulletin of the Academy of Military Science)*, No. 1 2014, pp. 14-22.

²⁸³ Ibid.

however, the precision of foresight is inversely proportional to the lapsed time period squared, and therefore is replete with miscalculation. Normative prognosis includes mathematical modeling methods, systems analysis, operational research methods, objective trees, theoretical graphs, and network methods. 285

Indirect actions are reflected in improved methods of asymmetric, information, and unorthodox activities, using surprise and the time factor, for example, to advantage. With regard to surprise, Chekinov and Bogdanov note that ruses in warfare "were seen as a rational and necessary device, and acted as a coefficient of increasing the force and might of attacks. Refusing to employ cunning in war, conversely, undermined one's own strength." Twenty-first century military art will have different forms and methods of struggle, where nonmilitary and indirect actions will dominate with stratagems and surprise helping in their application. 288

There has been a change in the essence and content of armed conflicts.²⁸⁹ The opposing sides will inflict damage predominantly on enemy weapons and military equipment instead of enemy personnel, so that the course and outcome of armed struggle will rely on the ability of the opposing sides to regenerate weapons and military equipment created on the basis of the latest technologies. This requires the implementation of sets of nontraditional measures (timely creation of reserves of different information resources, etc.).²⁹⁰ Troops will be equipped with

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²⁸⁴ S. G. Chekinov and S. A.Bogdanov, "Military Futurology: Its Origin, Development, Role, and Place within Military Science," *Voennaya Mysl'* (*Military Thought*), No. 8 2014, pp. 26-27.

²⁸⁵ Ibid., pp. 27-28.

²⁸⁶ S. G. Chekinov and S. A. Bogdanov, "The Art of War at the Beginning of the 21st Century: Problems and Opinions," *Voennaya Mysl'* (*Military Thought*), No. 1 2015, p. 42.

²⁸⁷ Ibid.

²⁸⁸ Ibid., p. 43.

²⁸⁹ P. A. Dul'nev and V. I. Orlyanskiy, "Principal Changes in the Nature of Armed Struggle in the First Third of the 21st Century," *Vestnik Akademii Voennykh Nauk (Bulletin of the Academy of Military Science)*, No. 1 2015, pp. 44-51.
²⁹⁰ Ibid.

directed energy weapons and resources to cause software failures and increase opportunities for surprise actions. New trends to forecast will include an increase in the intensity of armed struggle, a reduction of the duration of operations, and the conduct of armed struggles for more decisive goals.²⁹¹

Nonstandard forms and methods are being developed. Russia's new-type warfare includes "asymmetric" methods for confronting an enemy. Measures include the use of Special Forces, foreign agents, various forms of information effects, and other nonmilitary forms. For each conflict a different set of asymmetric operations will be created. 292

Forecasts of future wars require a skillful combination of military, nonmilitary, and special nonviolent measures using a variety of forms and methods and a blend of political, economic, information, technological, and environmental measures, primarily by taking advantage of information superiority. Forecasting is viewed as an instrument that helps avoid errors in identifying the principal avenues for promoting military art, avoiding paths that lead nowhere, and cutting the costs of maintaining military security. Military science must use this methodology to validate the substance and nature of future wars and even to develop strategy. Russia must look for new forms and methods of using violent and nonviolent measures and indirect moves to protect its national interests. Renowned Soviet military theorist A. A. Svechin said one cannot restrict oneself to entrenched stereotypes if one want to conduct strategic forecasts of the nature and substance of future wars.

²⁹¹ Ibid.

²⁹² A. V. Kartapolov, "Lessons of Military Conflicts and Prospects for the Development of Means and Methods of Conducting Them, Direct and Indirect Actions in Contemporary International Conflicts," *Vestnik Akademii Voennykh Nauk (Bulletin of the Academy of Military Science)*, No. 2 2015, pp. 35-36.

²⁹³ S. G. Chekinov and S. A. Bogdanov, "A Forecast of Future Wars: Meditation on What They Will Look Like," *Voennaya Mysl'* (*Military Thought*), No. 10, 2015, p. 44. ²⁹⁴ Ibid., p. 49.

²⁹⁵ Ibid., p. 42.

Forecasting shows that future wars will have opening (about one month) and closing (which must be as short as possible) periods. Forecasts of the geostrategic situation are made and linkages assessed between warfare that employs the use of arms and the use of nonviolent and nonmilitary measures. ²⁹⁶

Countering Foreign Geopolitical Advances

There have been several recommendations suggested to counter Western geopolitical advances: get Cuba back as an ally; develop a friendship with another Latin American country, such as Nicaragua; establish a support port for the Russian Navy in Syria; continue to support Iran; reestablish Russia's links with all nations of the Caucasus; and form up once again the Mediterranean Sea Operational Squadron.²⁹⁷

Countering Western civilizations cognitive advances have been equally troubling. The West devised a unique indirect approach, the so-called "organizational weapon," that allowed it to win the "cold psycho-information war." This became known as the cognitive information phase of organizational weaponry, and was defined by S. Chernyshev as the employment of systems designed to eliminate a certain society, organization, company, or family (the mission does not have to be on a global scale). They noted that metaprogramming involved "installing program filters that force the client to perceive the world in a way desired by the programmers. [Note: this explanation is very close to the understanding of reflexive control theory].

As perceived by Russia, specific US threats are the global strike strategic-operational concept, the network-centric concept, weapons based on new physical principles, globally integrated operations, and the

²⁹⁶ S. G. Chekinov and S. A. Bogdanov, "A Forecast of Future Wars: Meditation on What They Will Look Like," *Voennaya Mysl'* (*Military Thought*), No. 10, 2015, p. 47. ²⁹⁷ Vladimir Kozhemyakin, "Caribbean, Iran, and the Caucasus—Three Painful Calluses for the US," *Argumenty i Fakty* (*Arguments and Facts*), No. 38, 17 September 2008, p. 9 as downloaded from Eastview.com on 18 March 2010.

²⁹⁸ S. G. Chekinov and S. A. Bogdanov, "The Strategy of the Indirect Approach: Its Impact on Modern Warfare," *Voennaya Mysl'* (*Military Thought*), No. 6 2011, p. 10. ²⁹⁹ Ibid., p. 11.

use of outer space and cyberspace.³⁰⁰ Advanced combat action forms will include operations by mobile inter-service groupings active within the unified reconnaissance and information space that employ qualitatively new systems of command, control, and support, with threats neutered by advanced information technologies that reduce spatial, temporal, and information gaps between troops (forces) and facilities in operations and between bodies of command and control of unified groupings. Remote noncontact impact on the adversary will be the chief method of attaining the objectives of combat actions and operations, and obliterating differences among the strategic, operational, and tactical levels and between offensive and defensive activities.³⁰¹

Gerasimov noted that the emphasis on the methods of fighting moves toward the complex application of political, economic, information, and other nonmilitary means, carried out with the support of military force, also known as the so-called hybrid methods. To counter hybrid techniques two deterrence-type approaches are required. Internally the country's military and civilian assets must be mobilized to neutralize threats and counter or deter hybrid methods. Externally, Russia's cooperation with foreign countries and organizations such as the CSTO, SCO, and BRICS help deter foreign aggression through a demonstration of solidarity. Russia must be prepared to protect state interests against an adversary's employment of both traditional and hybrid methods of confrontation. 302

Military Strategy/Correlation of Forces

In a late 2016 edition of *Military Thought*, the lead article was a very long and thought provoking article on the topic of military

³⁰⁰ S. G. Chekinov and S. A. Bogdanov, "The Art of War at the Beginning of the 21st Century: Problems and Opinions," *Voennaya Mysl'* (*Military Thought*), Vol. 1 2015, p. 38.

³⁰¹ Ibid., p. 39.

³⁰² V. V. Gerasimov, "The Syrian Experience. Hybrid Warfare Requires High-Tech Weapons and Scientific Substantiation," *Military Industrial Courier Online*, 9-15 March 2016.

strategy.³⁰³ The article was significant for two reasons: there has been only one or two articles in this journal on the topic over the past decade; and the purpose of the article was to discuss the drastic changes in the military strategic situation of the past few decades, since the forms of employing the Armed Forces has expanded and new methods of warfare have emerged.³⁰⁴ The old definition of strategy needs updating as a result, in the authors' opinion.

Numerous issues of military strategy were discussed, to include its essence, tasks, elements, role, nature, principles, purpose, and content, among others. For this discussion, only the latter three will be examined.

The purpose of military strategy in the future, the authors contend, consists in guaranteeing the safety of Russia's development, as well as the external and internal sovereignty of the country in complex geopolitical conditions of interstate relations. The principles of military strategy as a result will change as humanity progresses, especially in regard to new developments in science and technology. Peacetime principles of military strategy include the following:

- Strategic deterrence and the anticipation of the military, political, and strategic situation
- Identification of military threats and their trustworthy assessment
- Correspondence of strategic goals and tasks as to the political objectives of war
- Preparation of the state for defense well in advance
- Timely buildup of strategic reserves and stocks
- Prevention of war. 306

³⁰³ S. G. Chekinov and S. A. Bogdanov, "Military Strategy: a Look into the Future," *Voennaya Mysl'* (*Military Thought*), No. 11, 2016, pp. 3-15.

³⁰⁴ Ibid., p. 4.

³⁰⁵ Ibid., p. 5.

³⁰⁶ Ibid., p. 7.

Wartime principles include the following:

- Unexpected, resolute, and continuous strategic actions
- Asymmetric actions
- Coordinated use of cross-service groupings of troops (forces)
- Firm and continuous leadership of the Armed Forces
- Seizure and maintenance of the strategic initiative
- Preventive actions. 307

The principles of military strategy have become the initial theoretical provisions from which state and military leaders make decisions on defense and security issues. ³⁰⁸

Due to the recent emphasis on non-military activities, the content of military strategy has changed. It now includes the Armed Forces employment in anti-crisis situations, peacekeeping operations, internal military cooperation, and disarmament issues, among others. Economic and political factors will now influence military strategy in a greater way than before. The essence of military strategy, defined as the military activity of the state to realize doctrinal precepts, will affect the factors and forms of military strategy's content. 309 The content of military strategy has thus changed as well and will include the following:

- Discovering and assessing the views and opportunities
 of leading states and coalitions to prepare, unleash,
 and conduct war and combat actions on a strategic
 scale
- Revealing the potential nature of future warfare, above all its strategic content and ways to prevent it beyond power measures, such as the use of nonviolent means (to include indirect and asymmetric actions)

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³⁰⁷ Ibid.

³⁰⁸ Ibid.

³⁰⁹ Ibid., pp. 9-10.

- Defining the tasks of the Armed Forces (AF) in war and in strategic operations, as well as the means to this end
- Substantiating the methods, forms, and conditions for preparing and conducting war on the whole
- Strategic planning of the AF's employment in prospective wars and strategic operations, and use of combined cross-service troop (force) groupings
- Command and control of the AF in peace-and wartime
- Providing strategic, moral and psychological, and logistical support of AF actions
- Working out military strategic requirements for military construction and buildup of the AF, and preparation of the state for defense.³¹⁰

The authors note that military strategy's content is not a constant due to changes in the military, sociopolitical, economic, and other spheres. However, the greatest influence will come from military threats and dangers and the results of science-and-technology progress, especially the latter's impact on the forms and methods of their employment.³¹¹

Finally, the authors state that military strategy's content, and its place in military art, will be "radically affected by new approaches to realizing the strategy of indirect moves" and the increasing importance of asymmetric and nonviolent measures. The form of strategic operations will include political isolation, economic sanctions, sea, air, and ground communication blockades, intimidation by force, and the introduction of peacekeepers under the pretext of human rights protection. ³¹²

One other item of interest in the article was the number of times that the elements of military thought (trends, forecasting, forms, and

³¹⁰ Ibid., p. 10.

³¹¹ Ibid.

³¹² Ibid., p. 12.

methods) were used. For one thing, their usage demonstrates the terms continued emphasis. For another, it offers new and updated ways of considering them. The term trend was used 25 times, forecasting was not used at all (but the word prognosticate was used twice), and forms and methods (together) were used 6 times. Separately, forms were used 10 times and methods 13 times. Two other terms, indirect and asymmetric, often used to expand on how military art will be considered, were used 6 times together. Indirect was used separately 4 times and asymmetric was used 3 times.

Several other authors have also underscored the fact that as the methods of waging armed conflicts change, significant emphasis should be placed on the correlation of direct and indirect actions in strategy. Indirect actions are tied to political, economic, and psychological influences on the enemy and to methods of feeding him disinformation and destroying him from within. Another key factor is the impact of information systems as a vital component of not only communications and reconnaissance but also strike assets, to include the impact of artificial intelligence on robotics.

In the 21st century there will be a shift toward aerospace: longer range, greater power and accuracy, possibility of consecutive and simultaneous attacks across the entire theater of operations by piloted and pilotless aerial vehicles. This requires a four-to eight-fold superiority of the attacker's air force over an adversary's defense³¹⁴ [note: a COF assessment].

Gerasimov notes that 21st century wars are not even declared. Nonmilitary methods now surpass military actions by a 4:1 ratio; this takes place with the involvement of the population's protest potential and

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³¹³ M.A. Gareev, "Lessons and Conclusions Drawn From the Experience of the Great Patriotic War for Building Up and Training the Armed Forces," *Voennaya Mysl'* (*Military Thought*), No. 5 2010, p. 20.

³¹⁴ S. V. Kuralenko, "Tendencies in the Changing Character of Armed Struggles in Military Conflicts in the First Half of the 21st Century," *Voennaya Mysl'* (*Military Thought*), No. 11 2012, pp. 41-42.

information warfare measures. Remote noncontact influence methods are achieving the goals of battles and operations, and new methods of carrying out military operations (no-fly zones, private military companies, etc.) are being used.³¹⁵ The design of an efficient armed forces contingent in Russia depends, in large degree, on finding an optimal COFM of armed struggle.³¹⁶

By the end of the 20th century prognostication was a branch of military science, with over 150 methods worked out, and RF MOD research organizations now use an improved version of the COF in various calculations.³¹⁷ These calculations are consistent with Russia's more applied math approach to predicting conflict, as opposed to the US approach, which relies heavily on historical analysis.

The development of weapons based on new physical and technological principles will change the percentage contribution [note: COFM] of various types of effects (fire, energy, software) used to destroy the enemy. This will cause a change in resource dependence for armed struggles.³¹⁸

Forms (Organizations) and Methods (Weapons and Military Art)

Putin stated in 2006 that, "we should not chase after quantitative indicators...our responses will have to be based on intellectual superiority. They will be asymmetrical, less costly." The asymmetric approach to ensuring military security is the sum total of the forms and

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³¹⁵ Valery Gerasimov, "The Value of Science is in Foresight: New Challenges Demand Rethinking the Forms and Methods of Carrying out Combat Operations," *Voyenno-Promyshlennyy Kuryer Online (Military-Industrial Courier Online)*, 26 February 2013. ³¹⁶ Ibid.

³¹⁷ S. G. Chekinov and S. A.Bogdanov, "Military Futurology: Its Origin, Development, Role, and Place within Military Science," *Voennaya Mysl'* (*Military Thought*), No. 8 2014, p. 26.

³¹⁸ P. A. Dul'nev and V. I. Orlyanskiy, "Principal Changes in the Nature of Armed Struggle in the First Third of the 21st Century," *Vestnik Akademii Voennykh Nauk (Bulletin of the Academy of Military Science)*, No. 1 2015, pp. 44-51.

³¹⁹ S. G. Chekinov and S. A. Bogdanov, "Asymmetric Actions in Support of the Military Security of Russia," *Voennaya Mysl'* (*Military Thought*), No. 3 2010, pp. 20-21.

methods of employing forces and assets based on the sides' non-identical capabilities, making it possible to avoid (diminish the consequences of) a confrontation or a direct armed clash with a potential adversary. This includes implementing measures to induce apprehension, demonstrating readiness and capabilities, and operating to deter via the guaranteed engagement of an opponent's most vulnerable military assets and other strategically important facilities (command and control agencies, major industrial enterprises, hazards [dams, water, nuclear power stations], and critically important communications facilities). Deterrence can include threatening to use environmental and socio-political catastrophes as well ³²⁰

The strategy of indirect operations is characterized by the multiplicity of forms and methods of operations employed, including the conduct of information and remote (noncontact) confrontations, the segmented use of fires and strikes (land, air, sea), and, in the not too distant future, antisatellite operations. The US uses this strategy now to neutralize adversaries without weapons through information superiority. New technologies and concepts, such as network-centric operations, play a significant role in the forms and methods of future conflict. 322

Some so-called nonmilitary forms and means of warfare saw unprecedented technological development and acquired a very dangerous, practically violent character. For example, covert cyberattacks can cause serious complications in the energy, banking, and financial systems of opposing countries, so it will be unclear against whom to declare war. ³²³ Forces can include the use of special operations

³²⁰ Ibid., pp. 21-22.

³²¹ S. G. Chekinov and S. A. Bogdanov, "Asymmetric Actions in Support of the Military Security of Russia," *Voennaya Mysl'* (*Military Thought*), No. 3 2010, pp. 19-20.

³²² S. G. Chekinov and S. A. Bogdanov, "Initial Periods of War and Their Impact on a Country's Preparations for a Future War," *Voennaya Mysl'* (*Military Thought*), No. 11 2012, p. 19.

³²³ M. A. Gareev, "Anticipate Changes in the Nature of War: Every Era Has Its Own Kind of Military Conflict, and its Own Constraints, and its Own Special Biases,"

forces and internal oppositions for the creation of a "continually operating front over the entire territory of the opposing state, and also information influence, the forms and methods of which are continually being improved."³²⁴ Information conflict, in particular, opens up "extensive asymmetric capabilities for the reduction of an enemy's combat potential."³²⁵

Space reconnaissance assets are a principal source of information during the planning, organization, and conduct of combat operations, where radio-technical, radar, photo, TV, infrared, and radiation reconnaissance are continuously carried out, providing information in real time. Space assets support the guidance of precision cruise missiles to targets.³²⁶ Each country preparing or already prepared for noncontact warfare will want to fully control near-Earth and interplanetary space. Command and control of all combat intelligence systems, forces, and assets will be implemented from command posts in space and in the air, or from protected command posts on the ground, radically changing the content and nature of warfare, where it is not masses of forces, but rather recce-strike and defensive combat systems that will clash in noncontact warfare characterized not by the quantitative and qualitative superiority of one of the sides, but rather by structural and organizational factors, of command effectiveness and control, and the quality and guidance systems in communications of military support operations. 327

Forms and methods are studied by the General Staff's Center for Military and Strategic Studies. 27 central science and research institutions are looking at command, control, and communications systems; 46 such institutions are examining the development of weapon

Voyenno-Promyshlennyy Kuryer Online (Military-Industrial Courier Online), 5 June 2013.

³²⁴ Ibid.

³²⁵ Ibid.

³²⁶ V. Slipchenko, "Information Resources and Information Confrontation: their Evolution, Role, and Place in Future War," *Armeyskiy Sbornik (Army Journal)*, No. 10 2013, p. 56.

³²⁷ Ibid., p. 57.

systems; 18 such institutions, as well as the Center for the Study of the Military Potential of Foreign Countries, are examining intelligence issues; and 25 such institutions and the Main Science and Methodological Center are studying logistics.³²⁸

The types and methods of armed struggle imply a more "active employment of nonmilitary measures and indirect actions in interstate confrontation." Supporting the development of these measures and actions are the forms and methods of preparing and conducting warfare, which Chekinov and Bogdanov believe are the most important tasks of military art. Indirect actions display a great diversity of forms and methods of nonmilitary measures and nonviolent actions, especially in the information and remote (noncontact) confrontation. Military art, the theory of preparing and conducting armed struggle on land, sea, and space, encompasses organizing, conducting, and supporting operations and actions. 332

Weapon volumes to control information objectives will increase, leading to "the development of forms and methods of operations aimed at the achievement of superiority in command and control and the destruction of the enemy's precision weapons of various ranges."³³³ Further, the development of space systems will cause a future redistribution of the percentages of traditional and new weapons to destroy the enemy during land (land-air, air-naval) operations. The percentage of rocket forces during the fire destruction of the enemy in

³²⁸ V. V. Gerasimov, "The Role of the General Staff in the Organization of the Country's Defense in Accordance with the New *Statue on the General Staff*, Approved by the President of the Russian Federation," *Vestnik Akademii Voennykh Nauk (Bulletin of the Academy of Military Science)*, No. 1 2014, pp. 14-22.

³²⁹ S. G. Chekinov and S. A. Bogdanov, "The Art of War at the Beginning of the 21st Century: Problems and Opinions," *Voennaya Mysl'* (*Military Thought*), No. 1 2015, p. 34.

³³⁰ Ibid., p. 36.

³³¹ Ibid., p. 37.

³³² Ibid., p. 33.

³³³ P. A. Dul'nev and V. I. Orlyanskiy, "Principal Changes in the Nature of Armed Struggle in the First Third of the 21st Century," *Vestnik Akademii Voennykh Nauk* (Bulletin of the Academy of Military Science), No. 1 2015, pp. 44-51.

operations may increase, and aviation employment may be reduced.³³⁴ Developing directed energy weapons and the software means of destruction enables the reduction of explosives.³³⁵

The West is using new forms of confrontation, combining military and nonmilitary resources, the latter including political, economic, and information effects are being employed as well. Russia will counter with the further development of strategic nuclear forces, Spetnaz, and an increase in the potential of its force groupings on threatened axes, where it will utilize reconnaissance, fire destruction assets, and the command and control of troops and weapons as priority improvements. 336

Developing doctrine requires insights into the forms and methods of violent and nonmilitary actions, which are required before reforms, military economies, and infrastructures can be upgraded. Military science must be able to handle the transformation of views on the nature of threats, changes in the forms and methods of wars conducted by joint and cross-service task forces, the laws of warfare, and new areas of military art's development.³³⁷ Nuclear weapons will have reduced significance.

Gerasimov requested that the Academy of Military Science develop new forms and methods to counter hybrid threats. The scientific development of the forms and methods of applying joint institutional groups and sequences of military and nonmilitary actions must be considered for crisis situations. The Academy should focus on the new perspective vectors of military research, the evolution of new forms of strategic activities of the Armed Forces, space and information warfare, the development of prospective armaments [author: methods], the study

³³⁴ Ibid.

³³⁵ Ibid.

³³⁶ V. V. Gerasimov, "New Forms of Confrontation Employed by Western Countries will be Considered when Developing Russia's Defense Plan," *Armeiskiy Sbornik (Army Journal)*, No. 3 2015.

³³⁷ S. G. Chekinov and S. A. Bogdanov, "A Forecast of Future Wars: Meditation on What They Will Look Like," *Voennaya Mysl'* (*Military Thought*), No. 10, 2015, p. 48.

of the nature of modern warfare, and the problems of strategic deterrence (finding ways to deter hybrid pressures with nonnuclear means). ³³⁸ New models of weapons, such as robotic systems, a future telecommunications infrastructure, and an aerospace defense system must be created, and strategic deterrence forces must be developed. ³³⁹ Information resources must be viewed as potential effective weapons that can be used against Russia. ³⁴⁰

A VPK report noted the development of direct-flow hypersonic jet engines and flight management systems; super-high-yield warheads; laser weapons; small, medium, and large robot-based platforms (the force must be increased by 20-30 percent with robotized models of arms); electrothermal chemical and electrodynamic guns with high-speed projectiles; super-high-yield electromagnetic pulse generators; multispectral optical target detection devices; ultra-broadband radars with phased-array antennas based on radio photon elements; zonal rapidly deployed active and passive hydro-acoustic systems for interpreting underwater situational awareness; and means of conducting information wars (particularly in cyberspace) and cognitive control.³⁴¹ The report went on to state that new models of nonlethal devices are being developed as well.

Operational Design

There is little written in the open press on operational design. In one of the few references to the topic, Lieutenant General Ivan Aleksandrovich Buvaltsev, chief of the RF AF Main Combat Training Directorate, stated the following to a question about an exercise scenario:

³³⁸ V. V. Gerasimov, "The Syrian Experience. Hybrid Warfare Requires High-Tech Weapons and Scientific Substantiation," *Military Industrial Courier Online*, 9-15 March 2016.

³³⁹ Ibid.

³⁴⁰ Ibid.

³⁴¹ Konstantin Sivkov, "Information is the Best Defense. Scientists Call for Sixth Technological Generation to Be Adopted into the Armory," *Voyenno-Promyshlennyy Kuryer Online (Military-Industrial Courier Online)*, 25 June 2014.

Here you cannot talk about a scenario as a whole, so to speak, because these are not planned exercises, shall we say, that are conducted according to a single operational design, as when we are trying to comprehend the development of an operational-strategic situation. The start was specified (the operational alert) and the performance of tasks according to combat assignments. That is to say, these plans are to stipulate that formations and combined formations should go to their designated areas and perform their intended tasks. 342

Other than this reference, the term has not appeared in the Russian military's open press. Another way to translate *zamysel operatsii* is operational content or operational intent. However, these terms were also seldom used.

Major Concepts

IPW is the Key to Success

The main objectives of future wars will be achieved in the opening phase, which will become the turning point of the war."³⁴³ It will include destroying military and government control centers, disrupting the system for controlling a country, and targeting the military-industrial infrastructure. It will also include air, fire, and electronic attacks followed by paratroopers, Special Forces, and then land forces in the final stage. It was noted that the nuclear deterrent could be used against an opponent who has attacked using conventional weapons.³⁴⁴

The IPW was defined as when warring states "conduct military operations involving groups of their armed forces that were deployed before the start of the war to achieve their short-range strategic

³⁴² Interview of Ivan Buvaltsev by Sergey Buntman and Anatoliy Yermolin, "Military Council: Surprise Inspection of Combat Readiness of Troops of the Eastern Military District," *Echo Moskvy Online*, 27-29 July 2013.

³⁴³ Sivkov, p. 13.

³⁴⁴ S. A. Bogdanov and V. N. Gorbunov, "On the Character of Armed Confrontation in the Twenty-First Century," *Voennaya Mysl'* (*Military Thought*), No. 3 2009, pp. 13-14.

objectives or to create favorable conditions for committing their main forces and continuing with more operations."³⁴⁵ The IPW can come into play when a conflict is induced by natural resource depletion, the shrinkage of economies, rising demographic and ethno-political tensions in some countries, or widening gaps in economic development and living standards. It has new political, economic, and military conditions that change its parameters, which accords with history's lessons that each war appears as a special case with different factors affecting the IPW.³⁴⁶ The projected speed of future wars may not allow countries time to put their economies on a war footing, making it even more important to prevent potential adversaries from achieving military and technological superiority [note: there appear to be three phases to an IPW plan; committing forces in secret before war begins; creating conditions for the main force; and being aware that new conditions will continuously change initial parameters].³⁴⁷

The goals of IPW will be attained through the employment of military, economic, and information technology measures in combination with efficient psychological information. New technologies include capabilities in outer space, information warfare, cyberspace, and weapons based on new physical principles (beam, geophysical, wave, genetic, and psychophysical). 349

Information Superiority is a Priority

Information superiority includes domination in space and reconnaissance systems, and in warning, navigation, meteorological, command and control, and communication assets; advantages in numbers of recce-strike systems and precision missiles; speed of

³⁴⁵ S. G. Chekinov and S. A. Bogdanov, "Initial Periods of War and Their Impact on a Country's Preparations for a Future War," *Voennaya Mysl'* (*Military Thought*), No. 11 2012, pp. 14-27.

³⁴⁶ Ibid., p. 17.

³⁴⁷ Ibid., p. 18.

³⁴⁸ Ibid.

³⁴⁹ Ibid.

introducing new programs, systems, and capabilities; and reliable information protection of assets.³⁵⁰

Information has been used to mislead, surprise, intimidate, or undermine leaders of an opposing force in the past, usually in tactical situations. Contemporary conditions show that information effects (indirect operations) now are capable of strategic missions. Strategic information confrontation can disorganize military and state command and control measures, dupe the adversary, create public opinion, organize antigovernment demonstrations, and lower the opposing sides resolve to resist.³⁵¹ Clearly the side with information superiority will be the first to utilize these advantages.

In 2011 it was noted that information's impact can tackle strategic tasks and that strategic information confrontations are used to disorganize an opponent, deceive him, create a desired public opinion, organize antigovernment protests, etc.³⁵² Information technologies can affect individuals and the mass consciousness of a nation or the systems of government and military control. Without information security a state can lose its political sovereignty, economic independence, and role as a world leader.³⁵³

Special information campaigns include broadcasts, the mobilization of reservists, the relocation of army units, and the deployment of reserves from the heartland to influence adversaries, backed up by false activities that are produced such that adversary

³⁵⁰ V. Slipchenko, "Information Resources and Information Confrontation: their Evolution, Role, and Place in Future War," *Armeyskiy Sbornik (Army Journal)*, No. 10 2013, p. 52.

³⁵¹ S. G. Chekinov and S. A. Bogdanov, "Asymmetric Actions in Support of the Military Security of Russia," *Voennaya Mysl'* (*Military Thought*), No. 3 2010, p. 20. ³⁵² S. G. Chekinov and S. A. Bogdanov, "The Strategy of the Indirect Approach: Its Impact on Modern Warfare," *Voennaya Mysl'* (*Military Thought*), No. 6 2011, p. 6. ³⁵³ Ibid., p. 9.

reconnaissance units will capture them and think they are real.³⁵⁴ Mass media can be used to stir up chaos and confusion in government and military management or command and control. The media can instill ideas of violence, treachery, and immorality in another nation to demoralize the public [note: which appeared to be a Russian action vector in Ukraine].³⁵⁵ Chekinov and Bogdanov note that the danger associated with the mass media means that it must be kept under government control; national information sources must be kept from adversarial influence. A psychological information attack is directed against information exchanges in cyber space in a bid to achieve information superiority and cause damage to the adversary.³⁵⁶ Attaining information superiority is thus a priority if strategic objectives are to be achieved in NGW, and can be an IPW priority, to be followed by conventional weapons.³⁵⁷

Information struggles will sharply grow between command and control systems of strike and strategic defense forces at various levels; between strike and defensive assets of the countries; over the creation of a complex information and interference situation in the entire aerospace domain in the region of combat operations and the entire theater of war (military operations); over imposing on the enemy one's own rules for conducting military operations; and over a reliance on information support for military-technological superiority. Information confrontation is becoming the factor that will substantially influence future warfare itself—its beginning, course, and outcome. Information confrontation in noncontact warfare should be understood as a new strategic form of struggle in which special methods and resources act on an enemy's information environment while protecting one's own to achieve strategic goals.³⁵⁸ The possession of information assets in future warfare is becoming as indispensable an attribute as possession of forces and

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³⁵⁴ S. G. Chekinov and S. A. Bogdanov, "Initial Periods of War and Their Impact on a Country's Preparations for a Future War," *Voennaya Mysl'* (*Military Thought*), No. 11 2012, p. 25.

³⁵⁵ Ibid., p. 27.

³⁵⁶ Ibid., p. 25.

³⁵⁷ Ibid., p. 24.

³⁵⁸ Ibid., p. 54.

means, arms, munitions, transport, and so on in past wars, and will result in the achievement of strategic and political goals.³⁵⁹

Information war is the start point of every action in a "new type of warfare (a hybrid war)" in which broad use is made of the mass media and computer networks (blogs, social sites, etc.). New information techniques, operating in the nanosecond format, are the decisive factor for military success, and are based on new technologies that are key components of information weapons, capable of paralyzing computer systems controlling troops and weapons and depriving the enemy of information transmission functions. Computers may become strategic weapons in future wars. 360 Information and psychological warfare come in all forms and methods. Future wars will be launched by EW forces, which protect friendly forces, block foreign propaganda disinformation, and strike at enemy EW forces and assets. They blend with strategic operations of the armed forces and with aerospace operations, augmented by cruise missiles, and reconnaissance "outfits (UAVs, robots)" delivering strikes and fires. Strategic goals in future wars require that information superiority is assured over the enemy. Russia should look out for new-type wars (hybrid), including those actions to influence the behavior of the armed forces of Russia or to instigate internal tensions in society.361

Indirect and Asymmetric Operations

Military art is at a level where deeper views are needed on methods of conducting operations, engagements, and battles according to the principle of the dialectic continuity of experience that is accumulated from the past. The strategy of the indirect approach (SIA) is taking precedence over a strategy of force as a key to success. The SIA is characterized by a diversity in the forms and methods of military action; these include information warfare, stand-off warfare, segmented polycentric and EW strikes, and ground and naval, air and space, and

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³⁵⁹ Ibid., p. 55.

³⁶⁰ S. G. Chekinov and S. A. Bogdanov, "A Forecast of Future Wars: Meditation on What They Will Look Like," *Voennaya Mysl'* (*Military Thought*), No. 10, 2015, p. 44. ³⁶¹ Ibid., p. 45.

anti-satellite operations. The US uses this type of asymmetric strategy today. 362

Information's impact today can address strategic tasks. It was highlighted that "military command now has information-psychological weapons, i.e., special weapons based on the use of destructive information-psychological and information suppressing impact on the human psyche to direct or suppress human behavior and activity."363 Included in such weaponry are the mass media, energy-informationpsychotropic-information, psychological weapons, bioenergeticsinformation, information-energy, virtual information-psychological weapons, somatropic-psychological-information weapons, and computer telecommunication networks. These weapons would be employed with other strike and EW assets (new weapon types), new tactical methods, and deception and stratagems. 364

Commanders have always tried to control an adversary's conduct on the psychological (reflexive) level by using military stratagems (decoys, feints, etc.). Vorobyov and Kiselev note that in World War II, "reflexive control of the enemy's conduct was achieved by implementing an array of measure and activities, interconnected by goal, place, and time and designed to foil the adversary's plans..."³⁶⁵

The re-division of territory and markets is now being achieved through the indirect approach and the employment of nonmilitary means, such as political, economic, information, and climatic measures. Nonmilitary means show affinity for the concept of the indirect approach or indirect strategy³⁶⁶ [note: in their article on asymmetric operations, Chekinov and Bogdanov wrote that "asymmetric approaches and

³⁶² I. N. Vorobyov and V. A. Kiselev, "The New Strategy of the Indirect Approach," *Military Thought*, Vol. 4 2006 of the Eastview publication *Military Thought: A Russian Journal of Military Theory and Strategy*, pp. 30-31 (in English).

³⁶³ Ibid., p. 31.

³⁶⁴ Ibid.

³⁶⁵ Ibid., p. 34.

³⁶⁶ S. G. Chekinov and S. A. Bogdanov, "The Strategy of the Indirect Approach: Its Impact on Modern Warfare," *Voennaya Mysl'* (*Military Thought*), No. 6 2011, p. 4.

operations are close in terms of content to the strategy of indirect operations."³⁶⁷ Thus, these authors would have you believe that the indirect, asymmetric, and nonmilitary approaches are actually quite close to one another in meaning]. "Given the current reality, it appears expedient for Russia to map out and eventually implement a strategy of indirect approach as its state strategy without an alternative."³⁶⁸

Vorobyov and Kiselev write that a cyber-security plan must draw upon the strategy of asymmetric actions. Included in this approach are the following points: replacing monotony and stereotypes with multiple functions; combining centralization and decentralization instead of rigid hierarchy in command and control; using joint efforts rather than each unit for itself; using symmetry in place of asymmetry and asymmetry in place of symmetry; using alternatives instead of set-course actions; preempting against go-slow or wait-and-see attitudes; using modules instead of open-ended formations; using multipolarity in place of monopolarity; and using multiplicity instead of singularity. They stated that fire strike maneuver in cyberspace is performed, based on mobility and surprise. New types of weapons include cyber weapons, ultrahigh-frequency weapons, directed energy weapons, and others, as present-day warfare is a competition in intelligence, information and reconnaissance gathering, and navigational abilities. The strike is a competition in intelligence, information and reconnaissance gathering, and navigational abilities.

Wars are now asymmetrical, that is, fought by adversaries with different technologies and different stages of development of their armed forces in terms of weapons, forms, and methods of fighting.³⁷¹ An asymmetric operation is a weak adversary's strategy that is designed to combat a strong adversary. Such operations involve the following: the unpredictability of the outcome of engagements even in the face of the

³⁶⁷ "Asymmetric Actions...," pp. 19-20.

³⁶⁸ "Indirect Approach...," p. 13.

³⁶⁹ I. N. Vorobyov and V. A. Kiselev, "Indirect Warfare in Cyberspace," *Voennaya Mysl'* (*Military Thought*), No. 12 2014, pp. 21-28.

³⁷⁰ Ibid

³⁷¹ P. A. Dulnev and E. A. Bryuzgin, "The Probable Character of Future Warfare," *Vestnik Akademii Voennykh Nauk (Bulletin of the Academy of Military Science)*, No. 2, 2005, pp. 126-127.

clear incommensurability of the sides' COF; probing for the strong side's weaknesses; indirect military operations; and the inability of the strong side to defend positions or suppress a weak adversary.³⁷² Asymmetric operations are characterized by qualitative differences in employing new (nontraditional) means of armed struggle and forms and methods of waging it, yet are close in content to the strategy of indirect operations.³⁷³

Foreign experiences must not be copied. Each war requires an understanding of its own particular unique character.³⁷⁴ Asymmetric operations are inherent to a conflict situation in which, by means of an economic, diplomatic, information, and indirect military nature, a weaker enemy uses an asymmetric strategy (tactics) to conduct an armed struggle in accordance with his available limited resources to level the stronger side's military-technological superiority. A very important condition for conducting asymmetric operations is the precise determination of the enemy's most vulnerable and weakest areas, action against which will provide the maximum effect with minimal expenditure of one's own forces and resources.

Asymmetric operational principles include maintaining covertness of preparations for the conduct of operations; persuading the weak side to use prohibited means to conduct military operations; concentrating efforts against the enemy's most vulnerable locations (targets); searching for and exposing the enemy's weak points; imposing on the enemy one's own variant (one's own will) for the course of the conflict; and expending low resources with respect to enemy actions. The goal is to achieve superiority or parity with results.

³⁷² S. G. Chekinov and S. A. Bogdanov, "Asymmetric Actions in Support of the Military Security of Russia," *Voennaya Mysl'* (*Military Thought*), No. 3 2010, p. 16. ³⁷³ Ibid., pp. 19-20.

³⁷⁴ V. V. Gerasimov, "Principal Tendencies in the Development of the Forms and Methods of Employing Armed Forces and Current Tasks of Military Science Regarding their Improvement," *Journal of the Academy of Military Science*, 2013, No. 1, pp. 24-29.

To confront asymmetric opponents it is necessary to employ numerically small, specially trained contingents of troops; conduct preventive operations and make use of covert agent intelligence; explain work among the local population; switch to nonmilitary ways of exerting pressure on a weak adversary; and rely on indirect and nonmilitary operations.³⁷⁵

Results of the Military Thought Process

It is important to state at the outset that exactly when in the thought process a new concept or template for the application of power is developed is not clear. It could, for example, come immediately after a forecast is developed, or it could be the result of the COFM and forms and methods process.

Russia's military thought template to date has resulted in two very different outcomes: the NGW and new-type warfare concepts. Both have only been discussed completely on one occasion each. NGW in an article in *Military Thought* by Chekinov and Bogdanov in 2013; new-type war in an article in the *Journal of the Academy of Military Science* in 2015 by Kartapolov. Of interest is that now Chekinov and Bogdanov use the latter terminology rather than NGW. Gerasimov used new-type once in 2013 and has not used new-generation at all, according to available open sources. Hence, the current open-source focus clearly is on new-type warfare and not NGW.

With regard to the 2013 NGW discussion, Chekinov and Bogdanov stated that information superiority and anticipatory operations will be the main ingredients for success in NGWs, citing several characteristics.³⁷⁶ The characteristics are information, social media, nonlethal or bio or color revolution related; reconnaissance, aerospace, and robot related; and the importance of the IPW.

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³⁷⁵ S. G. Chekinov and S. A. Bogdanov, "The Nature and Content of a New–Generation War," *Voennaya Mysl'* (*Military Thought*), No. 10 2013, p. 18.
³⁷⁶ Ibid.

Conflict or wars would play out in the following manner. First, the aggressive side would use nonmilitary actions such as a distributed attack, designed to strike at a country's social system via a disinformation campaign to conceal the commencement date and scale of operations, which requires the attainment of information superiority.³⁷⁷ Second, decisive information environment battles would include the remote manipulation of "intelligent machines" such as a quantum computer, which can operate in the nanosecond range, employing speed and synchronization to decide success or failure. Conflict would be set up by information, moral, psychological, ideological, and other measures months earlier, ³⁷⁸ with heavy propaganda designed to spark discontent among the defender's population, and armed forces personnel.³⁷⁹

aggressor may use nonlethal, new-generation, Third genetically engineered biological weapons that affect the human psyche and moods, or he may use undercover agents planted to encourage discontent and unlawful acts. 380 Fourth, the military phase will be preceded by large-scale reconnaissance and subversive missions conducted under the guise of information operations used to target important objectives vital to the country's sustainability. 381 Fifth, the attack begins with an aerospace operation lasting several days to damage an opponent's key military and industrial capabilities, communication hubs, and military control centers, or to disorganize a defender's air force and air defense system. 382 Sixth, the use of military robots and UAVs is anticipated, with each capable of engaging in combat independently and used to collect intelligence and reconnaissance data. Ground forces are deployed after political and military goals are achieved. 383 Finally, and most important, the opening period (IPW) of an NGW will be pivotal, with targeted information operations, EW aerospace operations, precision weaponry, long-range operations,

³⁷⁷ Ibid., p. 19.

³⁷⁸ Ibid., p. 20.

³⁷⁹ Ibid., p. 20.

³⁸⁰ Ibid., p. 21.

³⁸¹ Ibid.

³⁸² Ibid.

³⁸³ Ibid., p. 22.

artillery, and weapons based on new physical principles dominating the phasing of the operation.³⁸⁴

NGW was popularized in an excellent paper written by Latvian Army officer Janis Berzins. However, a recent search on open-source data indicated that NGW has almost completely disappeared from Russian military literature. There were zero hits on the topic over the past 1500 days, and Chekinov and Bogdanov now use new-type terminology, not NGW.

In 2015 General A. V. Kartapolov opened discussion on "newtype" warfare in an article in the Journal of the Academy of Military Science. The major difference between NGW and new-type warfare is that the former was developed by retired officers and the latter by active general staff departments, making the latter more relevant and likely. Kartapolov noted that nonstandard forms and methods are being developed. Russia's new-type warfare includes "asymmetric" methods for confronting an enemy. Measures include the use of Special Forces, foreign agents, various forms of information effects, and other nonmilitary forms. For each conflict a different set of asymmetric operations will be created. 385

Asymmetric operations are inherent to a conflict situation in which, by means of actions of an economic, diplomatic, information, and indirect military nature, a weaker enemy uses an asymmetric strategy (tactics) to conduct an armed struggle in accordance with his available limited resources to level the stronger side's military-technological superiority. A very important condition for conducting asymmetric operations is the precise determination of the enemy's most vulnerable and weakest areas, action against which will provide the maximum effect with minimal expenditure of one's own forces and resources.³⁸⁶

³⁸⁶ Ibid., p. 35.

³⁸⁴ Ibid., p. 23.

³⁸⁵ A. V. Kartapolov, "Lessons of Military Conflicts and Prospects for the Development of Means and Methods of Conducting Them, Direct and Indirect Actions in Contemporary International Conflicts," Vestnik Akademii Voennykh Nauk (Bulletin of the Academy of Military Science), No. 2 2015, pp. 35-36.

Principles of asymmetric operations include maintaining covertness of preparations for the conduct of operations; persuading the weak side to use prohibited means to conduct military operations; concentrating efforts against the enemy's most vulnerable locations (targets); searching for and exposing the enemy's weak points; imposing on the enemy one's own variant (one's own will) for the course of the conflict; and expending low resources with respect to enemy actions. The goal is to achieve superiority or parity with results.³⁸⁷ These principles of Kartapolov and the same as those of Chekinov and Bogdanov in regard to asymmetry.

Conclusions

For the Western audience, it is important to note the stress placed on the following items: the expanded role of information; the importance of the IPW; the role of noncontact and planetary operations; and. perhaps most important of all, the emphasis placed on the standard method of analyzing contemporary events, which has continued for decades, that is, the more predictable aspects (elements and experience) of Russian thought. How and when to apply force is more subjective and dependent on the leadership's overall appraisal of risk assessments, Western developments, and geopolitical conditions, that is, each strategy that is adopted is based on a study of several factors that result in a conflict with a logic all its own. A good example of the result of such a process is the varied logic used in the Russian interventions in Estonia, Georgia, Crimea, Eastern Ukraine, and Syria. These actions included both direct means and indirect or asymmetric ones, or, as Gareev notes, the correlation of both.

The focus of the military thought template was to demonstrate that there is continuity in Russian thought that the US may be neglecting with its fixation on hybrid and gray area concepts; the focus on prominent authors was to investigate what was important to each group (official voices, research teams, and independent points of view) and whether there was agreement among them on specific concepts and ideas. Monitoring various viewpoints helps

³⁸⁷ Ibid.

researchers categorize concepts, as well as watch whether discussions on topics continue or end (as has happened with NGW and is currently progressing with new-type warfare).

The basis of Russian military thought—trends, forecasting, the COFM, and the forms and methods of fighting—has been used continuously for decades and thus must be kept in mind as we proceed. For example, it will be most important to consider the impact of S&T on the nature of future war. S&T advances will affect all areas of forecasting: military-technical, military-economic, and even military-strategic thought. Since the Russians are considering the fact that war can now be conducted from the other side of the planet, a new area of forecasting might be strategic-technical, although there has been no official proclamation of this development to date. Maybe the US can utilize the idea and get ahead of the forecasting curve.

What should really concern Westerners is which ideas have been accepted, put into use, and applied to the battlefield, especially in regard to future warfare. One issue to consider would be the importance of the IPW and the COFM and their mutual influence. That is, what strategic advantages are uncovered in the COFM assessment and how might they indicate when to initiate the IPW. The COFM may offer inherent recommendations as to the time, place, form, and method for the commencement of the IPW. According to military writers, this can only be accomplished successfully under the umbrella of information superiority. In Crimea, for example, Russia may have performed a risk analysis and relied on the media to present the Russian force as a present but non-threatening and thereby gained a degree of information superiority. The risk assessment also surmised that the potential for US involvement was minimal. A COFM military-economic, militarytechnical, and military-strategic assessment may have indicated that the US force is tired, basically withdrawn and out of area, and not able to gather much budgetary support. There was thus little to fear from the US based on this COFM, and the intervention into Crimea proceeded as predicted in light of the unfolding chaos in Kiev and Putin's risk assessment.

Another advantage of examining so many different opinions on future war is that one can ascertain specific definitions of terms. It is always important to understand what is meant by a term, what it includes, and how it could be used. The US should avoid mirror-imaging its concepts onto Russian thought, but should rely instead on listening to what the Russians are postulating, which can lead to new areas for study.

With regard to new issues for study, Russian thinking on the use of planetary warfare and space theaters of military operation definitely should remain as areas of consideration for US researchers. Other interesting topics include trends in armed struggles, bioweapons, new-type means and ways of conducting armed struggles (which appears to be emerging), strategic deterrence, the concept of geopolitical conditioning, et al.

Such indicators provide Western analysts with a glimpse of where Russian planning and organizational input may be headed, as well as what these writers consider to be future threats to Russia. With a good grasp of this information Western analysts will possess an advantage in their efforts to proceed with their own future prognostications of the unfolding nature of war and how to contend with it.

CHAPTER SEVEN: CONTROL FEATURES OF 'THE GERASIMOV LECTURES' 388

Introduction

There are few military speeches of importance in Russia that can match or exceed those of Russia's Chief of the General Staff, Valeriy Gerasimov. For the past five years, usually in February, he has spoken at the Academy of Military Science (AMS) on issues vital to strategy, operational art, and military science. Most of these speeches were carried in shortened form in *VPK*, the newspaper of the military-industrial complex. However, in his actual presentations, Gerasimov included tables and graphs (and sometimes more information) of importance, as discussed below, which were not provided in the newspaper articles. Each of his five speeches covered distinct yet important General Staff territory. Most touched on either the elements of military thought (discussed in the preceding chapter) or on control issues.

In 2013 Gerasimov's presentation focused on tendencies or trends in warfare and forms and methods of confronting them. Tendencies indicate changes in the character of war, along with the fact that new forms (organizations) and methods (weaponry and military art employment) are required of Russia's military and its employment of force. Most analyses of his talk focused on his concept that nonmilitary events are being used over military responses by a ratio of 4:1. This is both an "emerging character of war" issue and potentially an element of military art.

In 2014 Gerasimov covered the role of various organizations in the country's defense, the new Statute on the General Staff, and the elements of military thought that dictate methodology. This speech, which elicited little discussion, included 11 tables and graphs of importance. The speech covered all five elements of Russian military

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³⁸⁸ The author is indebted to Dr. Harold Orenstein, who translated the entire 2013 and 2016 speeches of Gerasimov, and selected portions of the 2014 and 2015 speeches. Without his support it would not have been possible to write this chapter.

thought, as discussed in Chapter Four. In hindsight, this speech may be more insightful than the 2013 speech.

In 2015 the focus was leadership issues during the Great Patriotic War and the organization of command and control issues required for the country's defense under contemporary conditions. In this speech an outline of the importance of the new National Defense Management Center (NDMC) was offered. In 2016, Gerasimov covered hybrid warfare issues and counters to them, which require high-tech weapons and a scientific basis, from his point of view. He was referring, of course, to the West's use of hybrid issues, since Russia, according to its military press, does not use the theory but new-type warfare instead. Finally, in 2017, he reiterated the need to continue to develop new forms and methods of warfare, and he stressed Russia's continuing need to understand what "war" means under contemporary conditions.

The following chapter will detail the important messages contained in Gerasimov's five speeches. The information provided to the AMS's audience results in some surprising findings and conclusions. 389

2013 Presentation

Gerasimov's 2013 speech was about principal military trends in the world and the requirement to develop the proper forms and methods to confront them. ³⁹⁰ He stated that any scientific discovery in the sphere of military science is not worth two cents if the military does not forecast its image of future war. ³⁹¹ Changes in the nature of military conflicts

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³⁸⁹ It is a misnomer to label Gerasimov's 2013 presentation as the "Gerasimov Doctrine." This is a US construct which not only confuses the issue, but also misses the point of his presentation. In Russian, the term "doctrine" is equivalent to the US term "policy," and the English term "doctrine" is equivalent to the Russian term "military art." His speech was neither, but rather a discussion of tendencies and forms and methods.

³⁹⁰ V. V. Gerasimov, "Principal Tendencies in the Development of the Forms and Methods of Employing Armed Forces and Current Tasks of Military Science Regarding their Improvement," *Journal of the Academy of Military Science*, 2013, No. 1, pp. 24-29.

³⁹¹ Ibid., p. 29.

require new forms and methods of the armed forces employment. This, in turn, creates new demands for the multifaceted employment of all the state's "power" structures. He called for the development of a scientific and methodological apparatus to support decision-making, one that takes into account the inter-service nature of force groupings and finds ways to combine their potential. 392

New models and nonstandard approaches are needed. Russia should not copy foreign experiences but rather should work on being in a leading position. This requires investment in military science. He notes that Soviet military scholar A. Svechin wrote:

It is unusually difficult... to predict a war situation. For each war it is necessary to work out a special line of strategic behavior, each war represents a specific case that requires the establishment of its own logic and not the application of some stereotypical pattern.³⁹³

This approach remains valid today, as each conflict must be confronted with a special logic due to the unique nature of each, with its inherent characteristics.

Gerasimov noted that the differences between war and peace are being erased in the 21st century, with wars no longer declared nor following traditional stereotypical patterns (the Middle East wars confirm that "safe" states can quickly become violent). In an important linguistic statement, Gerasimov notes that these "**new-type military conflicts**" (which General Staff Main Directorate Chief A. V. Kartapolov expanded on dramatically in 2015) involve consequences similar to regular wars. Nonmilitary methods (political, economic, information, humanitarian, etc.) are a trend that has grown in use and even exceeded military measures in effectiveness. They are supplemented with the protest potential of a population and some military measures (information opposition, special operations forces,

³⁹² Ibid., p. 28.

³⁹³ Ibid., p. 29.

etc.), with the latter sometimes operating under the guise of peacekeeping and crisis management.³⁹⁴

The new contemporary environment requires the preparation of different forces and their armaments, which include new forms and methods for their long-term employment to confront both traditional and nonstandard procedures. The factor of speed ensures that the tactical and operational pauses to which we are accustomed are disappearing. New information technologies reduce the spatial, temporal, and informational gaps between troops and command and control organs. Gerasimov says that remote, noncontact effects against the enemy are becoming the main method for achieving the goals of battles and operations (the military art aspect of methods). The destruction of enemy targets is being accomplished to the entire depth of his territory. The differences between the strategic, operational, and tactical levels and between offensive and defensive operations are being erased. The overall gist of the presentation, then, is his emphasis on the changing character of war and how Russia must adjust to it with new forms and methods.

Gerasimov added that presently a deep strike US threat is the concept of "Global Strike," which envisions the destruction of enemy targets and forces at practically any location on Earth in a matter of a few hours. Such weaponry is part of Russia's understanding of a method. ³⁹⁷ Further, he mentioned the introduction into military affairs of precision weapons, weapons based on new physical principles, roboticized systems, asymmetric actions (the forms and methods of the latter in Russia are said to be superficial, requiring the AMS's help to develop a holistic theory of asymmetric operations), and information effects, which are constantly being improved to reduce an opponent's effectiveness. ³⁹⁸

³⁹⁴ Ibid., p. 24.

³⁹⁵ Ibid.

³⁹⁶ Ibid., p. 26.

³⁹⁷ Ibid.

³⁹⁸ Ibid.

Not only did Gerasimov call for new forms and methods of asymmetric operations and information effects, but also he noted that military leaders, when discussing new forms and methods of armed struggle, should not "forget" Russia's experience in the Great Patriotic War, in Afghanistan, and in the Chechen Republic. In Afghanistan, for example, specific forms and methods included surprise, a high tempo of advance, and the capable employment of tactical air assaults and bypass detachments. ³⁹⁹ Thus, he includes the experience element from Russian military thought.

Today, Russia must ponder the development of operational forms and methods against a roboticized enemy; improvements in the forms and methods of employing force groupings; the forms of strategic operations (what kind and how many); and the development of forms and methods for the operation of aerospace forces. 400 Outside the borders of the Russian Federation (RF), the particular way that the Armed Forces forms and methods will be used still needs to be determined. Gerasimov noted that support to operations beyond Russia's borders included the introduction of simplified procedures for crossing the state border, the use of air-space and territorial waters of foreign countries, and the procedures for cooperating with the authorities of the host country. 401

Another form of employing Armed Forces formations outside the borders of the RF is the peacekeeping operation. In addition to peacekeeping's traditional methods, it is now possible to add special, humanitarian, rescue, evacuation, sanitary cordons, and other activities. Peacekeeping's complexity is apparent, requiring the ability to keep the conflicting sides apart, protect and/or rescue the peaceful population, reduce the potential for hostility, and arrange a peaceful life, all of which requires scientific work. ⁴⁰² [Perhaps a "special" activity was used in Crimea].

³⁹⁹ Ibid.

⁴⁰⁰ Ibid.

⁴⁰¹ Ibid., p. 27.

⁴⁰² Ibid., p. 28.

The publication of Gerasimov's speech in the *AMS* journal included six tables or diagrams. The diagram depicting the "Role of Nonmilitary Methods in Resolving Interstate Conflicts" quickly became the most widely reproduced and quoted, and it was in this diagram that the ratio of a 4:1 use of nonmilitary over military measures was depicted. ⁴⁰³ The diagram portrayed the phases of conflict from its covert origin to the reestablishment of peace on the horizontal x axis, and depicted the growth from a potential threat to a conflict on the vertical y axis. Below the axes was a chart listing some of the nonmilitary and military types of measures. These were the tendencies he was observing in the changing character of war.

Just below the diagram were two tables depicting both traditional forms and methods (commencement of military operations after strategic deployment; frontal clashes of large force groupings consisting basically of ground forces; defeat of personnel and destruction of fire resources, subsequent capture of lines and regions, with the aim of capturing territory; defeat of the enemy, destruction of economic potential, and capture of his territory; conduct of combat operations on land, in the air, and at sea; and command and control of force groupings within the framework of a strictly defined hierarchical structure of command and control organs); and new forms and methods (commencement of military operations by peacetime force groupings; high maneuver, noncontact combat operations of inter-service force groupings; reduction of militaryeconomic potential of a state by the destruction of critically important targets of his military and civil infrastructure in a short time; mass employment of precision weapons, extensive use of special operations forces, roboticized complexes, and weapons based on new physical principles; participation of the military-civilian component in combat operations; simultaneous effects on enemy troops and targets on the entire depth of his territory; armed struggle simultaneously in all physical environments and in the information domain; employment of asymmetric and indirect operations; and command and control of forces and means in a uniform information domain). 404

⁴⁰³ Ibid., p. 25.

⁴⁰⁴ Ibid.

A third forms and methods table was on military operations in the Afghan War. The forms and methods used there were: air-land mobile nature of forms and methods of conducting military operations; three-dimensional nature of the forms of employing forces; increase in dependence of operational success on the air fight; necessity of simultaneous effects on the enemy to the entire depth of his structure; increased roles of intelligence, radio-electronic warfare, and troop command and control; increased significance for maneuver to intensify efforts; encirclement of a large enemy grouping with its subsequent dismemberment and piecemeal destruction or compression of the ring of encirclement; combat operations of army formations and units by separate zones in the general area of operations; and air coverage, blocking of an enemy grouping in an isolated mountainous region, and his defeat with the approach of the main forces.⁴⁰⁵

The fourth table was on the "Development of Roboticized Resources in the US Armed Forces," apparently designed to indicate US preferences in weapon developments that Russia must consider countering. There were photos of US UAVs, mobile land robots, naval robots, unoccupied underwater apparatuses, underwater remotely operated apparatuses (NPA), autonomous NPAs, and crewless surface ships (including semi-loaded NPAs). These are items that Russia would have to counter.

The fifth table was more interesting, as it focused on Russia's "Operational Use of Armed Forces Formations Outside the Borders of the Territory of the Russian Federation." Goals of operational use included the protection of RF interests and its citizens and support of international peace and security. Tasks to be resolved were the repulsion of armed attack on the formations of the Armed Forces of the RF and other forces or organs deployed outside the borders of the territory of the RF; repulsion or prevention of armed attack against another state that has turned to the RF with the appropriate request [think Syria!]; protection of RF citizens outside the borders of the territory of the RF against an

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⁴⁰⁵ Ibid., p. 26.

⁴⁰⁶ Ibid., p. 27.

armed attack against them [think the Baltics!]; and the fight against piracy and the provision of shipping security. 407

Finally, the sixth table listed the "Principal Tasks of Military Science." They included: the development of forms for employing the Armed Forces; the improvement of forms and methods of employing forces enlisted to resolve air and space defense missions; the organization and conduct of territorial defense under contemporary conditions; the development of the theoretical bases for peacekeeping operations, employment of the Armed Forces outside the borders of the territory of the RF and in post-conflict settlement; information opposition; improvement of means of armed struggle and methods of their employment; military operations modeling; functioning of systems for the all-round support of the Armed Forces; and the improvement of the conceptual apparatus of military science. 408

2014 Presentation

Gerasimov's 2014 presentation is an explicit description of Russia's current activities and planning process. He focused on the role of the General Staff in organizing the country's defense. He elaborated on the tasks being resolved by the military and the scientific complex under contemporary conditions, based on a 2013 statute on the General Staff that Putin approved. These changes were mandated due to the new nature of armed struggle, that is, its fast-moving character and dynamic employment of military and nonmilitary resources. This requires leaders to react quickly with decisions for creating, employing, and supporting the employment of forces, to include a significant shift to the information and space domains for operations.

⁴⁰⁷ Ibid., p. 28.

⁴⁰⁸ Ibid.

⁴⁰⁹ V. V. Gerasimov, "The Role of the General Staff in the Organization of the Country's Defense in Accordance with the New Statute on the General Staff," *Journal of the Academy of Military Science*, No. 1 2014, pp. 14-22.

⁴¹⁰ Ibid., p. 15.

⁴¹¹ Ibid.

The General Staff's main task remains strategic planning in the field of defense and the development of the foundations for the country's military security, the ideology of the construction and development of the Armed Forces, and the military organization of Russia as a whole. The new statute provides for additional authority to coordinate the activities of organs of executive authority in the interests of ensuring the country's defensive capabilities and security. 412

Another main task of the General Staff consists of building and developing the Armed Forces as a whole and its troops' services and branches. Scientific research results in recommendations for the efficient composition of the Armed Forces and the optimal correlation of forces and means for armed struggle (COFM), which is how much of the forms and means to develop and where to put them. A very important task is the forecasting and early assessment of military threats to the RF and, on the basis of this, the development of recommendations for the improvement of state policy in the area of defense.⁴¹³

Leaders must make precise calculations when organizing defense, such as the General Staff's legislatively defined requirement to produce a Plan of Defense for the nation, which includes planning documents for the state's entire military organization. 414 This plan was developed in January 2013. Tasks were coordinated with respect to place, time, directions, forces, means, and resources. A very important point was that these integrated and interdepartmental cooperative measures were aimed at creating a strategic deterrence posture to prevent military conflicts through convincing adversaries of the futility of using further forms of pressure on Russia. 415

The new edition of the Statute on Military Planning in the Russian Federation specifies the defense plan's developmental sequence. The agencies responsible for strategic deterrence (and the development

⁴¹² Ibid.

⁴¹³ Ibid., p. 19.

⁴¹⁴ Ibid., p. 15.

⁴¹⁵ Ibid., p. 16.

of the appropriate documents) include the FSB, the MVD, and the MChS. All operations must take into account changes in the nature of military conflicts. New documents set out fundamental principles of state policy in the area of military development and detail the goals, tasks, trends, and measures for building and developing the RF's military organization. 416

To resolve these tasks it is necessary to integrate the command and control/administrative systems of the Armed Forces and federal executive organs participating in defense into a single system of state administration and military command and control. The development of the RF's NDMC is an important step. The opening of a national center enables a single system of command and control over the entire RF's military organization. This makes it possible in real time to obtain and analyze information and to prepare valid recommendations for decision making on the part of the state's leadership with regard to reacting to crisis situations in the country and abroad. In effect this is a massive system of military control. 417

The resolution of defense tasks requires appropriate military knowledge on the part of officials in federal executive organs. With this aim the Military Academy of the General Staff has resumed the joint training of representatives from the ministries and departments according to the National Defense Program. The training is conducted on a general operational-tactical background, according to uniform scenarios of the development of the military-political and strategic situation. 418

Special attention must be placed on creating a comprehensive theory of indirect and asymmetric actions conducted by various federal executive organs. They should work in accordance with a uniform plan to neutralize threats, according to a uniform plan, in the interests of Russia's military security. 419

⁴¹⁶ Ibid.

⁴¹⁷ Ibid., p. 18.

⁴¹⁸ Ibid.

⁴¹⁹ Ibid., p. 19.

The development of forms for employing force groupings and methods of their operations is required, as is the determination of their optimal composition. In 2013 a theoretical assessment of possible threats was conducted, methods were analyzed, and the creation of interservice force groupings on strategic axes (theaters of military operations) were checked. On the whole, the results that were obtained supported the implementation of practical tasks. 420

With the increase in the role of scientific research, requirements for the validation of scientific recommendations increase, the subjects of military-scientific developments broaden, and the forms and methods of research activity improve. This conditions the necessity of improving the military-scientific complex and using it in accordance with current and future tasks. Since 2013 the General Staff has been consistently doing such work.

Work is also being conducted on searching for and implementing new forms of cooperation between the MOD and establishments in the military-industrial complex. First and foremost is completing a five-year plan of development for scientific and research organizations in the MOD. This improves the structure and capabilities of the military-science complex. As an experiment, four science companies were formed and began to conduct research. This made it possible to attract talented graduates of institutions of higher learning to resolve scientific and practical tasks in the interests of the MOD. 421

A uniform system of organizing scientific research for defense will be developed, based on military-theoretical knowledge and the results of basic research from the Russian Academy of Sciences, the AMS, the Russian Academy of Rocket and Artillery Sciences, and other scientific organizations, and will use the potential of the military-industrial complex's enterprises. Special attention includes a focus on robotic systems with military applications, the creation of a future telecommunications infrastructure for the Armed Forces, and the

⁴²⁰ Ibid.

⁴²¹ Ibid., p. 21.

development of strategic deterrence forces and an aerospace defense system. 422

A special focus will be on their creation at AMS, to include generating a methodology of military development and creating new forms and methods for conducting military operations. The scientific potential of the Academy should be effectively employed in the interests of developing military and nonmilitary measures under conditions of contemporary armed conflicts, and assessing their balance.

This article contained eleven diagrams. The first covered the tasks of the General Staff that are specified in the *Statute on the General Staff*, approved in July 2013. The second described changes in the character of war. They involved the use of political, diplomatic, economic, and other nonmilitary measures in combination with the use of military force, to include:

- Reduction of the military-economic potential of a state by the destruction of vitally important objects of its military and civilian infrastructure;
- Simultaneous effects against enemy troops and objectives to the entire depth of his territory;
- Armed struggle simultaneously in all physical media and in the information domain;
- Command and control of forces and means in a uniform information domain;
- Mass employment of precision weapons, large-scale use of special operations forces, robotic systems, and weapons based on new physical principles;
- Employment of asymmetric and indirect operations;
- Commencement of military operations by peacetime force groupings; high-maneuver, noncontact combat operations by interservice force groupings;

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⁴²² Ibid.

• Participation of the civil-military component in military activities 423

The third diagram listed changes that were introduced into the federal law "On Defense," based on an April 2013 version. The goal of the changes was to coordinate the actions among the organs of state authority, command and control, and local self-government in the field of ensuring the country's defensive capability. The fourth diagram was of the administrative system for the RF's military organization. The fifth diagram was of forms of operational readiness in conjunction with the participation of federal organs of executive authority.

The sixth diagram described the purpose and task of the RF's military-scientific complex, which is a connecting link between the RF Armed Forces and the RF scientific complex. The military-scientific complex provides scientific validation regarding the trends in building and developing the RF's Armed Forces and serves as the initial study for making military-political decisions. Its components include:

- Validation of the basic trends in the building and development of the Armed Forces as a whole, services and branches of the Armed Forces of the RF, and forces that are not within the services and branches of the Armed Forces of the RF
- Determination of the optimal COFM of the Armed Forces of the RF, their qualitative and quantitative make-up, and the forms and methods of their combat employment
- Working out of tactical-technical and operationaltechnical requirements for future weapons and military equipment models (systems, complexes)
- Formation and study of new scientific trends that have an interservice and super-service nature, taking into account the results of basic forecasting and research in

⁴²³ Ibid., p. 15.

- the interests of building, developing, and employing the Armed Forces and of the security of the state
- Provision of military-scientific and scientific-technical accompaniment of weapons and military equipment at all stages of their life cycle.⁴²⁴

Gerasimov's seventh diagram described the military-scientific complex's development in 2013, which consisted of five science and research organizations created in the MOD. The eighth diagram was very important, as it extensively outlined the future structure of the Armed Forces military-scientific complex. The systemic science and research organizations of the RF's MOD conduct interservice and super-service tasks in the interests of the Armed Forces of the RF. They decide on the forms and methods of armed struggle (at the General Staff's Center for Military and Strategic Studies); command, control, and communications systems (in 27 central science and research institutions); and on the development of weapons systems (in 46 central science and research institutions).

Science and research organizations of the RF MOD are present in all spheres of armed struggle. These include:

- Land, via research in the field of the development of forms and methods of employing conventional ground forces and development and creation of weapons and military equipment in the interests of the Ground Forces and Airborne Forces; and via three central science and research institutions;
- Air, via research in the field of developing forms and methods of employing air and aerospace complexes and development and creation of weapons and military equipment in the interests of the Air Force; and via the Central Science and Research Institution of the Air Force;

⁴²⁴ Ibid., p. 18.

- Sea, via research in the field of developing forms and methods of employing naval military systems and creating and developing weapons and military equipment in the interests of the Navy; and via the Military Training and Research Center of the Navy;
- Strategic deterrence forces, via research in the field of creating and improving aerospace systems and development and creation of weapons and military equipment in the interests of Aerospace Defense Forces; via the Central Science and Research Institution of the Aerospace Forces; via research in the field of developing and improving strategic missile and space complexes and developing weapons and military equipment in the interests of the Strategic Rocket Forces; and via four central science and research institutions.

Finally, there are the special science and research organizations of the RF MOD. These include an intelligence aspect (via 18 central science and research institutions and a Center for Studying the Military Potential of Foreign Countries); special types of support (with 33 central science and research institutions for engineers, 48 central science and research institutions, 12 central science and research institutions [there was no indication as to whom the institutions belonged, so the 48 and 12 institute numbers probably support different branches], and 27 national centers); and engineer and camouflage support (via a Central Science and Research Institution [Engineer Forces]), among other elements. 425

The ninth diagram examined priority trends in developing and creating weapon systems, including forecasting threats to the security of the RF and working out forms and methods to effectively prevent them. The development of future weapons systems examines complexes, elements equipping them, and supporting systems, with the employment of the latest (breakthrough) technologies; the creation of a future telecommunications infrastructure for the Armed Forces and resources

⁴²⁵ Ibid., p. 20.

for information confrontation; the development of strategic deterrence forces and resources for countering an instantaneous strike; the development and creation of robotic complexes with military application UAVs; and the development of contemporary teaching and training systems for qualified specialists of various profiles in the interests of the Armed Forces of the RF.⁴²⁶

The tenth diagram listed the elements that would compose a uniform base of scientific knowledge. These include the formation of archives of the results of dissertation research and scientific research and experimental and design work on the basis of the Military-Science Library of the Armed Forces (special collection of controlled copies located in House 3 of the MOD); the development of an automated system to support decision-making, with the organization of scientific work in the Armed Forces of the RF; the creation of an electronic library of scientific work and an automated system for registering, storing, and analyzing the results of completed scientific-research, experimental-design and technological work and dissertation research (on the basis of 27 MOD central science and research institutions); and the integration of the information base with similar bases of other federal executive organs (Russian Ministry of Education and Science, Russian Ministry of Industrial Trade). 427

A final diagram described trends and directions in the joint work of Russia's MOD and the AMS. They include joint research into the nature of military threats to the security of the RF and ways to prevent war and military conflicts; the development of recommendations on providing more efficient and effective solutions of defensive tasks, including consideration of interdepartmental cooperation on issues of the organization of defense; participation in the development of scientific foundations of military doctrine and the organization of principles of the collective defense of friendly and allied states; the strengthening of foreign military-scientific ties and cooperation in training qualified specialists for the Armed Forces and military-industrial complex

⁴²⁶ Ibid.

⁴²⁷ Ibid., p. 21.

enterprises; the scientific and research work "Preface-30" (to include the formation of a system of opinions on the development of the military organization of the RF and the creation of a system of long-term analysis and strategic planning in the field of countering threats to national security); and the scientific and research work, "Defense" (bringing to light the essence of contemporary warfare, determining the criteria for employing nonmilitary resources in international confrontation, and forming a system of knowledge about war and defense of the state, taking into account the employment of both military and nonmilitary resources). 428

2015 Presentation

Gerasimov's 2015 presentation initially covered the leadership experiences of World War II, and from those lessons, there was an extrapolation of ways to conduct and organize the command and control of Russia's defense under contemporary conditions. The first lesson concerned the organized restructuring of the organs of state administration and military command and control. Gerasimov's 2014 speech seemed to cover all these points and how Russia had reorganized its administration for defense, 429 so there was not much new here.

The second lesson was that the experience of war convincingly demonstrates that the Supreme Commander-in-Chief and organs of strategic and operational-tactical command levels should train as a uniform system of command and control beforehand, in peacetime. A system of strategic leadership should be created on uniform principles: centralized control of the strategic nuclear forces and strategic force groupings. Here it is necessary to provide the military district and army commanders and, in a number of cases, formation commanders with the ability to make decisions independently under conditions of the

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⁴²⁸ Ibid., p. 22.

⁴²⁹ V. V. Gerasimov, "The Experience of Strategic Leadership in the Great Patriotic War and the Organization of Uniform Command and Control of the Country's Defense under Contemporary Conditions," *Journal of the Academy of Military Science*, No.2 2015, pp. 5-15.

commencement of enemy aggression, first and foremost, in case of his surprise attack. 430

The third lesson was that the effectiveness of the resolution of assigned tasks by force groupings depends, to a considerable degree, on the organization of cooperation among large formations, formations, and units of the services and branches of the Armed Forces. Interservice force groupings in theaters of military operations (on strategic axes) under a unified command should be created in peacetime.⁴³¹

The fourth lesson was that the technical outfitting of the system of strategic leadership (above all, communications and administrative resources) and the protection of command posts must be observed. Their operational readiness determines to what degree the combat capabilities of the Armed Forces will be realized. This is particularly urgent today, Gerasimov added, under conditions where the United States has implemented the "Prompt Global Strike" concept, within whose framework so-called "decapitation strikes" are envisioned to be delivered against the Armed Forces and state command posts of other nations.

The overall leadership of the defense of the country and the Armed Forces lies with the President of the RF, the Commander-in-Chief of the Russian Armed Forces. The organs of state authority of the RF, together with the organs of local self-government, carry complete responsibility for the provision of military security, the state of defense readiness, and the mobilization readiness and combat capability of the Armed Forces within the bounds of their powers, as determined by the Constitution. 432

An important step in the construction of a uniform system of state control of the military sphere of the Russian state was the creation of the NDMC. It is an organ of military organization of the state, under the leadership of the Supreme Commander-in-Chief of the Armed Forces of

⁴³² Ibid.

⁴³⁰ Ibid., p. 12.

⁴³¹ Ibid.

the RF. It continually operates, with an unchanging peacetime and wartime structure. 433

The principal duty of the NDMC is to monitor, analyze, and forecast the development of the situation on strategic axes and in problem regions, provide information support for decisions made by the leadership of the country and the Armed Forces, and coordinate the activities of federal executive authorities with respect to issues of safeguarding the country's defense. The functioning of the NDMC makes it possible to collect, analyze, and provide varied information in real time and to prepare well-founded recommendations for decision making by the state leadership with respect to operational reactions to crisis situations, both in the country and abroad. 434 In wartime one of the most important tasks of the NDMC is information support to the Stavka (a term which originates from the Armed Forces High Command of the Russian Empire and Soviet Union and probably refers to members of the High Command today) of the Supreme High Command about the situation in theaters of military operations, the transmission of Stavka instructions to the troops, and control over their execution.⁴³⁵

Taking into account the given situation on the territory of Russia, and in accordance with the Presidential Decree "On the Military-Administrative Division of the Country," the Western, Southern, Central, and Eastern Military Districts were formed in December 2010. The status of joint strategic commands was given to these military districts. In December 2014 the Northern Fleet Joint Strategic Command was established. 436

Each joint strategic command bears the responsibility for the combat readiness of its subordinate forces and for the safeguarding of the Security of the RF on a strategic axis. In peacetime the fleets and air force and air defense formations are subordinate to the commanders of

⁴³³ Ibid., p. 13.

⁴³⁴ Ibid.

⁴³⁵ Ibid.

⁴³⁶ Ibid., p. 16.

the military districts. In wartime the joint strategic command directs combat operations by interservice and interdepartmental groupings on land, at sea, and in the air. 437

The experience of the past war [Great Patriotic War or WW II] will never lose its importance. Command personnel of the Russian Army and Navy can and should extract from this experience everything that has not lost its significance, and, relying on the development of military art in the postwar period, creatively resolve contemporary tasks with regard to increasing combat preparedness and developing the Armed Forces 438

There were two diagrams worthy of note. The first analyzed the way to forecast the development of the situation. It noted that the president, the minister of defense, and the General Staff work out decisions. The NDMC collects, generalizes, and analyses information, such as important events in the world and in the RF, to include terrorist acts, the world's military-strategic and military-political situation, and the socio-political situation in the RF and Commonwealth of Independent States. The analysis includes information on the status and nature of troop operations; the manning of the Armed Forces; measures for operational readiness; emergency situations; the status of the combat readiness of the Armed Forces; the status of the combat readiness of the strategic offensive force groupings of foreign countries; and information from the data processing center. 439

Finally, there was a diagram that discussed the organs of strategic command and control of the military organization of the RF. These included, of course, the president, with links to the Security Council and the government of the RF (here one finds the federal organs of executive authority, the economic bloc; and the federation organs of executive authority, or power block, which includes the Special Formations [in wartime] and the Internal Forces of the MVD, military formations and

⁴³⁷ Ibid.

⁴³⁸ Ibid.

⁴³⁹ Ibid., p. 14.

organs); directly under the president is the *Stavka* of the Supreme High Command (in wartime), the Ministry of Defense, the General Staff, and the NDMC. Subordinate to it are the Center for the Control of Nuclear Forces, the Combat Control Center (multi-departmental force groupings and the large formations, formations, and military units in the Armed Forces of the RF), and the Center for the Command and Control of Everyday Activities. 440

2016 Presentation

Gerasimov's 2016 presentation began, as in 2013 and 2014, with a brief mention of the evolving nature of armed struggle. He stated that the rapid development of science and technologies had resulted in the employment of high-tech and long-range means of striking capabilities. This has become the main method of achieving the goals of military operations, he noted, 441 which is a departure from his 2013 focus on nonmilitary methods.

After this initial focus, he moved on to discuss the changing forms of resolving conflicts, which had given impulse to new methods of military operations. Thus Gerasimov again, as he has done in the past, mentions the forms and methods of military operations. Further, he notes that "the scientific development of forms and methods of employing various departmental groupings and procedures for actions by the military and nonmilitary components of territorial defense is required now." Methods included the employment of political, economic, information, and other nonmilitary measures, the so-called "hybrid methods." He described the latter in the following way:

Their content includes the achievement of political goals with minimal armed effects against the enemy, mainly by undermining his economic and military potential,

⁴⁴⁰ Ibid., p. 13.

⁴⁴¹ V. V. Gerasimov, "The Organization of the Defense of the Russian Federation Under Conditions of the Enemy's Employment of 'Traditional' and 'Hybrid 'Methods of Conducting War," *Journal of the Academy of Military Science*, No.2 2016, pp.19-24. ⁴⁴² Ibid., p. 20.

information and psychological effects, active support of internal opposition, and partisan and sabotage methods of conducting armed struggle. 443

It is unclear whether the use of hybrid methods refers to just a foreign powers use of this methodology (as the title of his article implies) or if he includes Russia among those using these methods.

Gerasimov states that the basis of hybrid actions is information technologies, which "envision the manipulation of the protest potential of the population." Information resources are an effective type of weapon. Military force is used only in extreme cases under the guise of peacekeeping activities or crisis management issues. Hybrid war is not officially declared and includes the use of indirect and asymmetric activities. States that fall under hybrid aggression slide into chaos. He adds that "there can no longer be 'classical' combat operations without 'hybrid' operations." Again, it is unclear if this implies that Russia is also considering or using hybrid actions.

Developments in traditional warfare and the "features of hybrid warfare" have caused changes in Russia's organization of defensive activities. They include:

- The consolidation of efforts of practically all organs of state power.
- The development of a new Defense Plan of the RF.
- Coordination of all of Russia's capabilities on a systemic basis.⁴⁴⁶

Russia must do several things to confront hybrid threats. The effectiveness of its deterrence policy, its territorial defense posture, and the prevention of military conflicts are the most important points to

⁴⁴³ Ibid.

⁴⁴⁴ Ibid.

⁴⁴⁵ Ibid.

⁴⁴⁶ Ibid., p. 21.

consider and improve upon. Coordinated measures to neutralize military dangers such as hybrid methods of pressure must be considered, 447 and collective security based on work with foreign countries is more important than before, to include advancing the system of regional and global security in the international legal field. Finally the main component of hybrid methods operations in the information domain must be emphasized. The most efficient asymmetric method of waging war has become the falsification of events and the restriction of the activities of the mass media. 448 This appears to be what Russia has been doing in contemporary times.

Command and control issues must be adjusted due to their importance. Two years ago Russia developed its National Center for Command and Control of the Defense of the RF. A primary function of the Center is to ensure that the country continues to operate during a crisis situation. The Armed Forces of the RF must be ready to protect state interests "in a military conflict of any scale, with the enemy's extensive use of both 'traditional' and 'hybrid' methods of confrontation." Russia's Armed Forces must be able to operate under "nontraditional" conditions of conducting military operations. 450

Gerasimov ended his presentation by emphasizing where Russia must concentrate its future research trends. They include developing forms of strategic operations; improving strategic offensive and defensive forces in both the space and information domains; and developing operational-strategic requirements for weapons and command and control systems. New ideas are required, and the AMS must play a key role in studying the evolving nature of contemporary warfare and the problems of strategic deterrence. ⁴⁵¹ Of interest is that his speech did not include graphs and charts, as did the other three speeches.

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⁴⁴⁷ Ibid.

⁴⁴⁸ Ibid., p. 22.

⁴⁴⁹ Ibid.

⁴⁵⁰ Ibid., p. 23.

⁴⁵¹ Ibid.

2017 Presentation

In March 2017 the Russian Academy of Military Science held its yearly conference. At the speaker's podium were Chief of the Russian General Staff, Valeriy Gerasimov, and other military notables. This was Gerasimov's fifth consecutive appearance at the gathering of scientists and current and retired military officers.

Gerasimov's speech, titled "Modern Wars and Current Issues of the Country's Defense," began with a general discussion of the concept of war. 452 He noted that the Russian Federation's Military Doctrine defined war as "a form of the resolution of interstate or intra-state contradictions with the employment of military force." Debates have continued on the war topic, however, with some sources noting that armed conflict now can include information, economic, and other variants. There remains, he noted, the need for an "analysis of the characteristic features and singularities of modern armed conflicts and for the ascertainment of the trends of their emergence and development."

For the US, Gerasimov notes, war appears to be classified as either traditional or nontraditional. In the 21st century this classification was supplemented with hybrid war, which cannot be classified as war or peace. Hybrid war has replaced, in his opinion, what the US earlier referred to as non-contact or remote-control war, such as NATO operations in Yugoslavia, where the non-contact issue first began.

Now conflicts can be described as involving a different composition of participants, weapons, and forms and methods of troop operations. Other changes include the correlation of the contribution of these types of conflict to the overall political success of a war. Information superiority must be established through the use of news

⁴⁵² Valeriy Gerasimov, "The World on the Brink of War. It is Not Enough to Take Account of Today's Challenges. Future Challenges Need to be Forecasted," *VPK Voyenno-Promyshlennyy Kuryer Online*, 15 March-21 March 2017. This summary was developed on the basis of what was reported in the *VPK*. It is possible that the actual speech, when published in the *Journal of the Academy of Military Science*, may differ from this version. All references and quotes in the text are based on the *VPK* source.

media and social networks, where information-psychological and information-technical factors are employed simultaneously. Still, it is too early, in Gerasimov's opinion, to use hybrid war as an overall term for such methods.

He adds that a blurring of the lines between war and peace is now a trend, where national security and sovereignty are threatened without the use of force. The use of new factors, such as the defense of democracy or inculcation of democratic values, is expanding. Methods include nonmilitary measures, along with the protest potential of a country's citizenry. They have acquired unprecedented technological development and could even lead to the collapse of the energy, banking, or other spheres of state activities.

Gerasimov then underscored that military coercion remains a trend that is inherent to most conflicts and that, based on the conflicts in Iraq and Yugoslavia, armed conflict will remain the main content of wars. However, analysts must continue to study and analyze war's essence. Further, the role and significance of the forecasting of dangers and threats is growing, to include assessing economic, information, and other challenges. This requires the balanced development of all services and combat arms and the mastery of precision weaponry intelligence-gathering, communications, automated electronic warfare. The Strategic Missile Troops, Navy, Air and Space Forces, and Ground Troops will all be modernized, with the strike potential of precision weapons increased fourfold. Robotic systems will enhance combat potential. New weapons are being tested in Syria and new lessons learned. The military-political leadership is also trying to restore the people's trust in the army.

Gerasimov concluded his talk with a statement of tasks for the Academy of Military Science to undertake, which included the study of new forms of interstate confrontation and the development of effective methods of countering them (he made a similar declaration at the end of his 2016 speech). Building scenarios and forecasts of the military-political and strategic environment are urgent tasks as well. Organizing and accomplishing the regrouping of troops in remote theaters requires separate study (this appears to be a correlation of forces factor).

Thus, Gerasimov's speech did not reveal anything startlingly new. He once again covered the basic parameters of Russian military thought, discussing trends, forecasting, correlation of contributions (instead of forces), and the forms and methods required to confront the emerging character of war. Of interest is that there also appears to be a serious discussion underway as to how to understand the essence of war under contemporary conditions. This debate should be followed closely in the coming months, especially since the title of the newspaper article publishing the speech was "The World on the Brink of War."

Conclusions

These five speeches are different in content and focus. The first (2013) speech was clearly the most discussed of the five. It is about the changing character of war, what Gerasimov termed "tendencies," which have resulted in nonmilitary approaches to solving geopolitical problems being preferred to military ones by a ratio of 4:1. Similarly, as the title of his presentation indicates, there are forms and methods that must be developed to contend with these tendencies. He mentioned forms and methods 11 times in his presentation.

The second (2014) speech referenced the new General Staff Statute that Putin had approved and focused on how the General Staff would organize the country's defense as a result. A shift to the information and space domains for operations was stressed, as well as the development of the appropriate military knowledge on the part of most federal executive organs. Such training is accomplished for various ministries and departments at the Academy of the General Staff. This presentation, while seldom mentioned by analysts, is at least equal in importance to Gerasimov's 2013 speech for its focus on a host of issues.

The 2015 presentation first conducted an extrapolation of command and control lessons learned from World War II and how to apply them to Russia's defense under contemporary conditions. That is, the speech discussed strategic leadership in some detail. The principal duties of the NDMC were said to be to monitor, analyze, and forecast the development of the situation on strategic axes and in problem regions, provide information support for decisions made by the leadership, and

coordinate the activities of federal executive authorities. A diagram discussing the organization of strategic command and control of military organizations was included.

In his 2016 speech Gerasimov very specifically stated, "The scientific development of forms and methods of employing various department groupings and procedures for actions by the military and nonmilitary components of territorial defense is required now." These forms and methods would help organize the defense of Russia against, as the title of the article noted, an enemy's employment of traditional and hybrid methods of conducting war. Changes conducted so far include consolidating the efforts of most organs of state power, the development of a new defense plan, and the coordination of Russia's capabilities on a systemic basis. He added that the most effective asymmetric method of war is now the falsification of events and the restriction of mass media activities. Finally, in his 2017 speech, Gerasimov was not as specific as before and focusing on military thought, describing new weapons, and finding new definitions for war.

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⁴⁵³ Gerasimov, 2016 presentation, p. 22.

CHAPTER EIGHT: REFLEXIVE CONTROL

Introduction

One of the prime goals for a Russian commander in warfare is to interfere with the decision-making process of an enemy commander. This is often accomplished by the use of disinformation, camouflage, or some other stratagem or application of military cunning. For Russia, one of the primary methods is through the use of the theory of reflexive control (RC). This principle can be used against either human-mental or computer-based decision-making processors. The theory is similar to the US concept of perception management, except that it attempts to control more than manage a subject, and it is used much more extensively.

The concept of RC was employed for many years by the Soviet Union, and now it is finding use in Putin's Russia. Its end goal is to influence decision-making, control behavior, or make an enemy act in a certain way. It manipulates the thought process of an opponent for the benefit of Russia through numerous means, to include the mass media, trolls, analogies, or even violence. It can be applied at the tactical, operational, strategic, and geopolitical levels through the application of various resources and measures.

The term is being discussed internationally as well, but always with a Russian context. Explanations of RC have appeared in Polish, Georgian, German, Indian, and Serbian papers just in the past year. The site *InSerbia News* (in English), for example, noted that Russia uses RC tactically, strategically, and geopolitically; and that it aims to convey selected information to the enemy forcing him to make self-defeating decisions (a computer virus influencing or controlling an opponent's decision-making process is one use, the article notes, adding that "young Vladimir Putin learned all there is to know about RC at the 401st KGB School."). The German press noted that RC uses information to deliberately distort the perception of reality in its audience and generate

⁴⁵⁴ InSerbia News (in English), 3 October 2016.

the desired reaction on the part of the recipient of the false information. 455

RC is defined in general terms 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. The theory continues to undergo further refinement today. For example, in the past five years there have been Russian military articles about the use of RC in network-centric warfare, in information weapons, in deterrence theory, and in 21st century tactics, all of which will be noted below.

This chapter will aim to provide an updated summary on RC thinking in Russia. This author has written before on the concept and some of that material is included as well. While it is not known exactly how frequently the concept is used by Russian political or military leaders, it certainly has a history, appears imbedded in theory, and is often revisited for its contemporary relevancy to evolving concepts. This inspires a much required closer look.

Definitions

Two fairly recent definitions of RC appeared in Russian publications in 2011. A dictionary-questionnaire-type book, *Operations in Information-Psychological War*, stated that RC was "one of the technologies for effects against the social consciousness." ⁴⁵⁷ It involves psychological technology based on the cyclical repetition of the chain: effect (stimulus)-reaction. According to K. G. Jung, who was cited in the definition, information-psychological effects (IPE) are implemented

⁴⁵⁵ Ingo Mannteufel, "Putin: Right Message for Everyone," *Frankfurter Allgemeine* (*Electronic Edition*), 1 March 2016.

⁴⁵⁶ See, for example, Timothy Thomas, "Russia's Reflexive Control Theory and the Military," *Journal of Slavic Military Studies*, 2004, pp. 237-256; Timothy Thomas, *Recasting the Red Star*, 2011, pp. 118-130; and Timothy Thomas *Military Strategy*, 2015, pp. 117-123.

⁴⁵⁷ V.B. Veprentsev, A.V. Manoylo, A.I. Petrenko, and D. B. Frolov, *Operations in Information-Psychological War: Short Encyclopedic Dictionary*, Moscow: Hotline – Telecom, 2011, pp. 446-448.

through "the relativity of everything human," where RC is the information effect on an object (people, associations of people such as groups, or even civilizations). 458 Further,

RC is first of all the art of manipulating people and groups of people; and secondly a specific method of social control. The technology is mainly aimed against a narrow group of people in a specific state who are invested with the greatest authority, or against separate individuals in this group. It is assumed that IPE against the leadership and executive structures of a country result at least in a temporary slowdown of the tempo of operational decision-making, and even in a blocking of the centers of administrative control of a state; at best, they can result in the 'authority' elites making decisions that are favorable with respect to the goals and intentions of the initiator of the IPE.

RC as a technology (method) depends on a special model of the subject being controlled instead of relying on human intuition. The model must reflect the object's ability to perceive itself and other objects, including those that are attempting to establish control, i.e., it must be reflexive. This requires that reliable channels for delivering information are determined, the objects susceptibility to types of external effects (such as the mass media) tabulated, and special scenarios created. With regard to technology, the authors note that

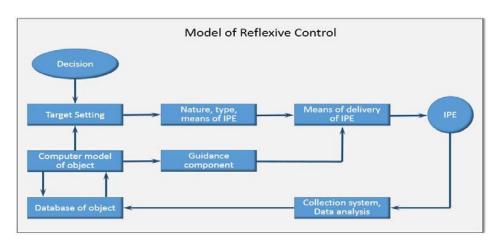
A computer model of the psychology of the behavior of the model, its reflexive apparatus, is created; according to a special program, scenarios of IPE and their consequences are played. After the employment of an IPE 'impulse,' an assessment is made in real time of the closeness of the reaction of the object to the target setting and, if necessary, additional optimal effects are

⁴⁵⁸ Ibid.

⁴⁵⁹ Ibid.

selected...The repetition of the cycles of IPE are limitless. 460

An important aspect of the methodology is the opening of the possibility of refining the national structure for making operational and strategic decisions. RC is the information effect on an object, for the description of which it is necessary to use concepts such as "consciousness" and "will." A model of RC was included, and it is reproduced below.



The RC references above note that the concept could be used operationally to control decision-making or (as in the *InSerbia* example) used tactically, strategically, or geopolitically. All such uses appear to be relevant. 462

⁴⁶⁰ Ibid.

⁴⁶¹ Ibid. The diagram above is on page 447 of the Veprentsev, Manoylo, Petrenko, and Frolov work

⁴⁶² In a discussion in Moscow with a Security Council administrator at some time in the late 1990s or early 2000s, this author asked whether the Council employed RC. The response was that the Security Council has a group of people who establish long-term goals and then formulate the type of RC actions required to reach that goal. This required influencing the decisions of other countries with RC's methodology, especially in regard to geopolitics. When asked who these people were, this author was told that such information would never be made public.

The technology link to RC was made clear as long ago as 1995 in a military article by Sergey Leonenko. However, this was a military and not a civilian reference. Leonenko noted that under present conditions a need arises to act not only on people, but also on technical reconnaissance assets, especially weapon guidance systems. The transparent use of mockups, for example, can reflexively control the other side into thinking this is not where the main attack will appear. 463

Another example of the use of technology was offered in 2015, indicating the concept continues to be exploited. In a discussion of why intelligent electronic warfare (EW) decision support systems in tactical formations are so important versus automated systems, it was noted that an automated system can operate like a robot using specific opportunities provided by complex RC mechanisms. However, the more comprehensive the system's automation, the greater the risk that robots might be controlled by both the adversary and friendly forces. Only a decision support system can facilitate the exercise of complex RC over an adversary, while protecting friendly systems from similar control by an enemy force. 464

Another early RC reference and definition was the 1975 book, Concept, *Algorithm*, *Decision*. Here RC was defined as follows:

Any disinformation is RC. Concealment, provocation, formulation of the opponents' doctrine, a diversionary strike, and conveyance to the enemy of a false impression about the level of our knowledge concerning him and of our notions relative to his ideas about our concept of him, etc., are all varieties of reflexive controls of different degrees. 465

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⁴⁶³ S. Leonenko, "On Reflexive Control of the Enemy," *Armeyskiy sbornik (Army Digest)*, No. 8 1995, p. 28.

⁴⁶⁴ Yu. Ye. Donskov, O. G. Nikitin, and P. N. Besedin, "Intelligent Electronic Warfare Decision Support Systems in Tactical Combined Arms Formations," *Military Thought*, No. 10 2015, pp. 33-40.

⁴⁶⁵ V. V. Druzhinin and D. S. Kontorov, *Concept, Algorithm, Decision*, Moscow 1975, p. 220, as translated and published under the auspices of the United States Air Force.

Arms control negotiations also included references to RC. In 1996, one Russian article in the journal, *Independent Military Review*, stated that when holding negotiations the techniques associated with creating a conducive atmosphere need to be studied. Conventional marketing techniques and specialized methods of psychological support warranted study, especially "techniques based on RC." Psychological support for negotiations fit quite well into the overall tasks of supporting arms export negotiations. 466

One of the more startling RC references in the early years was developed in 1997, for it implies that much written in Russia is merely RC-related material. In an article devoted to theoretical problems regarding the formation of Russia's military doctrine, Major-General A. F. Klimenko, an expert commentator on Russian military thought, stated that military doctrine contains recommendations on how military force may be employed. He noted that "the property of RC of the other, competing, side is set forth in it." Reflexive functions intended for both internal and external consumers are "programmed" into the doctrine, where these functions can "most effectively accomplish its role with the open publication of its main provisions." Thus, Western analysts of Russia's military doctrines and other documents should take pause, since Klimenko's assessment indicates that at least some open-source material may intentionally contain RC material. This could even include official documents such as Russia's military doctrine, as Klimenko stated.

A somewhat hidden military reference and definition of RC (one had to know what one was looking for) was also offered in 2011. In an official MOD document ("Conceptual Views on the Activities of the Armed Forces of the Russian Federation in Information Space") "information war" was said to involve:

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 ⁴⁶⁶ Petr Shlayev, "The Human Aspect of the Problem: Arms Exports and Ergonomics," *Independent Military Review* (supplement to *Independent News*), 24 February 1996.
 ⁴⁶⁷ A. F. Klimenko, "Theoretical-Methodological Problems of the Formation of Russia's Military Doctrine. The Techniques for their Resolution," *Military Thought (in English)*, No. 3 1997, pp. 6-9.

Conflict between two or more States in information space with the goal of inflicting damage to information systems, processes, and resources, as well as to critically important structures and other structures; undermining political, economic, and social systems; carrying out mass psychological campaigns against the population of a State in order to destabilize society and the government; as well as forcing a State to make decisions in the interests of their opponents. 468

The last line is key, "forcing a State to make decisions in the interests of their opponents." There is no difference between this statement and those from the definitions offered by many theorists over time, such as K. V. Tarakonov's 1974 thought that "RC is understood as the process of one of the sides giving reasons to the enemy from which he can logically infer his own decision, predetermined by the first side."

A Closer Look at the 1990s: Leonenko and Chausov

Leonenko

Writing in 1995 from a military perspective, Colonel S. Leonenko defined reflexive control as follows:

RC [reflexive control] consists of transmitting motives and grounds from the controlling entity to the controlled system that stimulate the desired decision. The goal of RC is to prompt the enemy to make a decision unfavorable to him. Naturally, one must have an idea

⁴⁶⁸ "Conceptual Views on the Activities of the Armed Forces of the Russian Federation in Information Space," *Ministry of Defense of the Russian Federation*, 2011, at ens.mil.ru.

⁴⁶⁹ Clifford Reid, "Reflexive Control in Soviet Military Planning," in Brian D. Dailey and Patrick J. Parker, editors, *Soviet Strategic Deception*, Lexington Books, 1987, Chapter 14, p. 294.

about how he thinks.⁴⁷⁰

A "reflex" involves the specific process of imitating the enemy's reasoning or imitating the enemy's possible behavior to cause him to make a decision unfavorable to himself. The decision itself must be made independently.

In fact, the enemy comes up with a decision based on the idea of the situation which he has formed, to include the disposition of our troops and installations and the command element's intentions known to him. Such an idea is shaped above all by intelligence and other factors, which rest on a stable set of concepts, knowledge, ideas and, finally, experience. This set usually is called the 'filter,' which helps a commander separate necessary from useless information, true data from false, and so on.⁴⁷¹

The chief task of RC is to locate the weak link of the filter and exploit it.

According to the RC concept, during a serious conflict, the two opposing actors (countries) analyze their own and perceived enemy ideas and then attempt to influence one another by means of RC. A "reflex" refers to the creation of certain model behavior in the system it seeks to control (the objective system). It takes into account the fact that the objective system has a model of the situation and assumes that it will also attempt to influence the controlling organ or system. RC exploits moral, psychological, and other factors, as well as the personal characteristics of commanders. In the latter case, biographical data, habits, and psychological deficiencies could be used in deception operations. ⁴⁷² In a war in which RC is being employed, the side with the highest degree of reflex (the side best able to imitate the other side's

⁴⁷⁰ Leonenko, p. 28. This is akin to how British and American perception management theorists view the purpose of deception.

⁴⁷¹ Ibid.

⁴⁷² Ibid., pp. 29-30.

thoughts or predict its behavior) will have the best chance of winning. The degree of reflex depends on many factors, the most important of which are analytical capability, general erudition and experience, and one's knowledge about the enemy. Leonenko added that, in the past, stratagems were the principal tool of RC, but today camouflage and deception [maskirovka] have replaced stratagems, a conclusion disputed by many. For example, the Chinese have demonstrated that electrons can be used as stratagems and operate as effectively as camouflage and deception in the traditional sense.

Leonenko's theories about varying degrees of RC can be explained as follows. If two sides in a serious conflict – "A" and "B" – have opposing goals, one will seek to destroy the other's goals. Accordingly, if side A acts independently of the behavior of side B, then his degree of reflex relative to side B is equal to zero (0). On the other hand, if side A makes assumptions about side B's behavior (that is, he models side B) based on the thesis that side B is not taking side A's behavior into account, then side A's degree of reflex is one (1). If side B also has a first degree reflex, and side A takes this fact into account, then side A's reflex is two (2), and so on.

If successfully achieved, RC over the enemy makes it possible to influence his combat plans, his view of the situation, and how he fights. In other words, one side can impose its will on the enemy and cause him to make a decision inappropriate to a given situation. RC methods are varied and include camouflage (at all levels), disinformation, encouragement, blackmail by force, and the compromising of various officials and officers. Achieving successful RC requires in-depth study of the enemy's inner nature, his ideas and concepts, which Leonenko referred to as the "filter," through which passes all data about the external world. So defined, a filter is a collective image (termed "set") of the enemy's favorite combat techniques and methods for organizing combat actions, plus a psychological portrait of the enemy. Thus, reflex requires study of someone else's filter and the exploitation of it for one's own ends. 473

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⁴⁷³ Discussion with a Russian military officer in Moscow, September 1998.

Leonenko integrated information technologies and RC theory in his writings. He noted that the use of computers could hinder the use of RC by making it easier to process data and calculate options. This is so since an opponent can more easily "see through" an RC measure by an opposing force by simply using a computer. The computer's speed and accuracy in processing information can detect the RC measure. On the other hand, in some cases, this may actually improve the chances for successful RC, since a computer lacks the intuitive reasoning of a human being. 474

Computer technology increases the effectiveness of RC by offering new methods adaptable to the modern era that can serve the same ends. Leonenko then assessed these new opportunities that the use of computer technology afforded to RC, stating:

In present conditions, there is a need to act not only against people but also against technical reconnaissance assets and especially weapons guidance systems, which are impassive in assessing what is occurring and do not perceive to what a person reacts.⁴⁷⁵

If an information warfare or information operation system cannot perceive what a person reacts to and is unable to assess what is occurring, does this mean that it provides only insignificant data? Or does it mean that there are two layers to reflexively control? The first layer consists of the "eyes, nose, and ears" of sensors, satellites, and radars. The second layer is the "brain software" of humans, which gathers, processes, and produces knowledge from the information or makes decisions based on it. What happens, however, if the "eyes, ears, and nose" are manipulated? How does that affect the input into decisions and knowledge? For example, the use of such military activity by Yugoslav forces in the Balkans fooled NATO sensors over Kosovo and

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⁴⁷⁴ Leonenko, p. 29. Who can say, however, what powers computers might assume in the future?

⁴⁷⁵ Ibid.

resulted in NATO shooting at targets that were fakes.

Yet, in the end, we do leave some decisions to computers. This indicates to Leonenko that we live in a much more frightening environment than we care to believe if, in fact, decisions are in the hands of machines that are "incapable of assessing what is occurring and do not perceive what a person reacts to."

Chausov

Finally, in 1999 F. Chausov noted that "RC is the process of the intentional conveying to an opposing side of a certain aggregate of information which will cause that side to make a decision appropriate to that information." Thus, information war techniques can be expected to contain RC methods. More important, Chausov discussed the risk involved with using RC, a topic seldom covered:

To justify the methods of using force while taking risk into account, the numerical measure R_0 is introduced as the difference between the assessments of guaranteed effectiveness, or $E_{\rm g}$, and the projected (situational) effectiveness, $E_{\rm s}$. The estimate of the guaranteed effectiveness represents the lower limit of the effectiveness indicator, given any type of enemy action and fixed actions by our own forces. Situational effectiveness refers to the effectiveness of a force's action which is achieved through a certain type of action based on a commander's decision. Ordering or establishing preference among the values of the risk looks like this: $R_{0,1} > R_{0,1+1}$.

Chausov listed the principles of RC as a goal-oriented process

 ⁴⁷⁶ F. Chausov, "Osnovi refleksivnogo upravleniya protivnikom (The Basics of Reflexively Controlling an Enemy)," Morskoy Sbornik (Naval Digest]), No. 9, 1999, p.
 12. The author would like to thank Mr. Robert Love of the Foreign Military Studies Office for his help in translating this and other segments of Chausov's article.
 ⁴⁷⁷ Ibid., p. 14.

requiring a complete picture of all RC measures needed; an "actualization" of plans, that is providing a sufficiently complete picture of the intellectual potential of commanders and staff officers (based on their reality), especially when conditions are determined by global information space; the conformity of goals, missions, place, time and methods for RC's conduct; the modeling or forecasting of the condition of a side at the time actions are being implemented; and the anticipation of events.

21st Century Tactics, Analogies, and Ukraine: A Theoretical Discussion

Vorobyev and Kiselev

Major General Ivan Vorobyev and Colonel Valeriy Kiselev, regular contributors to several Russian military journals, have mentioned the topic of RC on several occasions through the years. For example, in a 2006 article on the indirect approach they noted that RC of the enemy included implanting measures and activities, interconnected by goal, place, and time, designed to impose ones will on the enemy "through concealment, masking, deception, feints, decoy actions, and diversionary actions."

In 2008 they stated that commanders and staffs must master the "art of reflexive control" of enemy actions using robotized equipment, precision-guided munitions, and weapons based on new physical principles. This must be accomplished due to the intensification of information-psychological operations and the potential wider use of deception operations. Key elements of deception include "double deception (make opponents believe that true intentions are false)," "protection of key information," "embedded concepts (generate an opponent's misbelief in data that contains the deception plan)," and "false luck (create a situation for successful enemy actions that actually lead them to a trap)." In 2011, while discussing network-centric

⁴⁷⁸ I. N. Vorobyev and V. A. Kiselev, "The New Strategy of the Indirect Approach," *Military Thought*, No. 9 2006, pp. 2-5.

⁴⁷⁹ Ivan Vorobyev and Valeriy Kiselev, "Perspectives on Tactics in the 21st Century," *Armeyskiy Sbornik (Army Digest)*, No. 2 2008, p. 22.

actions, the authors noted that fighting today is "primarily intellectual, information-reconnaissance-navigational," where troop control assumes a form of battle control, meaning the RC of enemy actions. Decisions are an "amalgam of calculation and risk" and, thus, a goal of RC is to affect them. Finally, in a 2013 article devoted to the principles of military art, Vorobyev and Kiselev noted that information-psychological support is now an integral part of information war and includes the RC of the behavior of the enemy through the spread of false information programs and other forms of deceiving the enemy. 481

Khorunzhyy

In 2013, in a *VPK* article, Nikolay Khorunzhyy asked whether Russia really needed a cyber command. The article noted that important features of cyber wars indicate the extensive use of information resources by potential enemies. It was noted that "influencing his information system on the basis of the principles of reflexive control, one can achieve desirable actions," which some refer to as a provocation. However, the author notes, this is simply normal and an effective way of conducting war.⁴⁸²

Makhnin

Also in 2013 two interesting articles on RC appeared in the journal, *Military Thought*. The first, by V. L. Makhnin, has the most potential application to the ongoing conflict in Ukraine, especially as it applies to the media. He noted that going from the reflection of cooperation to that of conflict can break the will of the adversary's military and political leaders. This is known as strangling the enemy in a "friendly" embrace. 483 One is reminded of the Putin-Poroshenko meeting

⁴⁸⁰ I. N. Vorobyev and V. A. Kiselev, "From Modern Tactics to the Tactics of Network-Centric Actions," *Military Thought*, No. 8 2011, pp. 19-27; and "Trends in the Development of Network-Centric Actions," *Military Thought*, No. 5 2014, pp. 10-17.

⁴⁸¹ I. N. Vorobyev and V. A. Kiselev, "Evolution of the Principles of Military Art," *Military Thought* (in English), Eastview Press, No. 3 2008, pp. 84-91.

⁴⁸² Nikolay Khorunzhyy, "Does Russia Need a Cyber Command?" *Kovrov VPK.name*, 23 August 2013.

⁴⁸³ V. L. Makhnin, "Reflexive Processes in Military Art: The Historico-Gnoseological Aspect," *Voennaya Mysl'* (*Military Thought*), No. 1 2013, p. 40.

for a truce that was immediately followed by a Russian military invasion of Ukraine. Was Poroshenko strangled in the "friendly" embrace? One should closely observe recent cease-fires to see if the same "friendly" embrace repeats itself.

Makhnin stated that the organization of the reflexive process between opposing combat systems is related to the development and implementation of a series of measures to supply the reflexed combat system with interests, motivations, and reasons. These measures combine to create a desired operational-tactical situation and provide an incentive for making desired inferences and conclusions that benefit the friendly decision-maker. The use of the reflexive process leads to the following:

An analysis of the past experience in preparing and conducting operations, combat actions, engagements, and other tactical actions with the purpose of misleading the adversary in plans conceived by commanders shows that reflexive influence on the adversary was confined to forming a simulacrum, that is, false-real, information, and psychological images of objects, processes, phenomena. Reflexive influence using simulacra paralyzes the adversary's (decision-maker's) intelligent (creative) activity. 485

Simulacrums (images or representations of reality), naturally, are closely associated with the formation of a "new reality."

Yet another way to induce reflection, according to Makhnin, may be the most interesting and it involves the use of analogies. The latter's RC use enables one to draw inferences and discuss subjects that cannot be observed. In military art analogy is a cognitive approach that helps one develop concepts and a new way to achieve the purpose of specific actions. One is reminded of the use of the fascist and Nazi analogy in

⁴⁸⁴ Ibid., p. 34.

⁴⁸⁵ Ibid., p. 37.

reference to people fighting in Maidan Square against Ukrainian President Viktor Yanukovych, an analogy drawn to acquire support from the Russian population. Russians well remember the Nazi onslaught against Stalingrad and Leningrad in World War II, and so this analogy touches a raw nerve in them. Was the population a recipient of a form of internal RC through analogy? Most likely it was. Analogies can reflexively serve as a strong unifying force for a population with a strong historical predilection, as is the case for Russians and their memories of World War II.

Another Makhnin comment is that the reflexive approach allows a commander to uncover an idea unknown to himself or his opponent "at the moment." Interests, motivations, and reasons that shape the operational-tactical situation are conveyed to an adversary and stimulate his reasoning and conclusions, which can produce more reflexive input by Russian commanders. He notes that it could cause an opponent to slow down his operations, abandon plans, and make irrational decisions, which could be exactly what is happening in Ukraine.

Makhnin describes what he terms as creative and destructive reflexive functions. The former develops "in a situation when the struggle goes on at a slow pace and, accordingly, the operational-tactical situation changes slowly as well, when the opponents' objectives are clear, and the way to reach them has been figured out."⁴⁸⁷ Clearly the slow pace of the conflict in Ukraine has offered Russia the opportunity to thwart opinions that have developed against Russian support for the separatists and to keep Ukrainian forces from taking control of pro-Russian-controlled territory. Destructive reflexive functions refer to a commander's concept that is based on a tested way of action or an old idea. ⁴⁸⁸ Makhnin did not offer an example of destructive RC.

Kazakov and Kiryushin

⁴⁸⁶ Ibid., p. 46.

⁴⁸⁷ Ibid., p. 44.

⁴⁸⁸ Ibid.

The second article on RC control (which could also apply to actions in the Ukraine conflict at the combat or even diplomatic level) was written by V. G. Kazakov and A.N. Kiryushin. The authors asked "is it possible, apart from ordering about subordinates, to control people or groups that are not directly subordinated to one's own control body or decision-maker?" Since the time of Sun Tzu this has been done through deception or premediated actions, they note, which make the enemy believe in things that are not true. ⁴⁸⁹

Kazakov and Kiryushin discussed the concept of complex or double-track control over combat actions:

By dividing the control concept into command control (legitimizing manipulation of subordinate forces in an effort to accomplish a mission) and reflexive control (seeking to stealthily control enemy forces to create hindrances or frustrate their combat missions), we put a somewhat different sense into this classification that expands the scope of research into the control factor in general and control over combat actions in particular, and put it forward in a new, other than a pedagogical format. 490

They add that such control over combat actions needs to result in drawing up superior plans to employ RC and maneuver the enemy into a managed position, resulting in what they term as "reflexive superiority." The reflexive environment or reality of combat are the shared realm of two opponents, and there they "clash for priority and superiority of their strategies of reflections, ideas, and decisions," which translates into warfare. The authors add that RC expert V. A. Lefebvre, who developed the RC theory, believes that it is defined as "influencing the enemy in a

⁴⁸⁹ V. G. Kazakov and A. N. Kiryushin, "Complex Management of Military Actions," *Voennaya Mysl'* (*Military Thought*), No. 7, 2013, pp. 61-67.

⁴⁹⁰ Ibid., p. 63.

way that sways him into making a decision expected of him by the transmitting side."491

Interestingly the authors also quote Makhnin, who stated that "applying compelling influence is central to reflexive control as a way to constrain the generation and absorption of new knowledge, paralyze creativity by the opposing combat system's commanders and staffs, and constrict the scale on which the opposing combat systems' operational (combat) potentialities can be exploited."⁴⁹² This requires the development of an "information package," which is an RC message, put together for the enemy to make a decision. It thus is important to understand what an opposing commander "sees" and how he might subjectively respond. Again, like Makhnin, the authors think it is important to rely on the use of simulacrums, this time in the form of an information package, to influence enemy decision-making. ⁴⁹³

In 2015 Kazakov and Kirishin wrote an article on RC for the *Journal of the Academy of Military Science*. It appeared to be an expanded version of their 2013 article, containing some of the same information, while also offering new material. The authors noted that while control of the enemy is important, so is control of one's own troops. That is, the synchronic control of the enemy should be coordinated with control over subordinate friendly forces. Combat operations need the creation of "favorable conditions to execute combat tasks with the help of deception and covert control of the enemy." The "command control" of friendly forces is defined in the following way:

The purposeful, systemic, centralized, and subordinated action of a commander, through designated officers, on the military collectives of units, subunits, and each soldier in particular to ensure a high level of mobilization and

⁴⁹¹ Ibid., p. 64.

⁴⁹² Ibid.

⁴⁹³ Ibid.

⁴⁹⁴ V. G. Kazakov and A. N. Kiriushin, "All-Inclusive Command and Control of Combat Operations," *Journal of the Academy of Military Science*, No. 4 2015, p. 36.

combat readiness of forces, and to ensure that level of their professional and moral-psychological preparedness that, under combat conditions will make it possible for them to execute their assigned tasks fully and with minimal losses 495

The actual problem is controlling those forces outside the subordinate relationship, which is the enemy force. The usual method is to deceive the enemy. Deception is a "premeditated action aimed so as to create in another an impression of facts that do not correspond to reality." This has been a part of military art for a long time.

It appears that the theory of reflexive control (RC) will also be valuable in such research. RC is

Generally understood as the process of transmitting to the enemy the 'bases/foundations' for making a decision. At the same time, Lefebvre believes that RC is a special action against the enemy, with the aim of 'persuading' him to make a decision that has been predetermined by the controlling side. 497

There is great interest at the tactical level for this type of research. If an enemy force can be preempted in the sphere of thinking and plans, then the result can be the placement of an enemy force in the position of a controlled system, or a victim of what is known as "reflexive superiority." It is also necessary to consider how an opponent makes decisions and develops information packets, which can result in a reflexive controlling action. ⁴⁹⁸

Representing information packets is the term simulacra, which is a basis for determining the content of the functioning of an information

498 Ibid.

⁴⁹⁵ Ibid., pp. 36-37.

⁴⁹⁶ Ibid., p. 37.

⁴⁹⁷ Ibid.

packet as a means of deception. Simulacrum is from the Latin simularc "to pretend." There are representational (copy of a copy, pretending to be an original or the real thing, where false information exists but is not prevalent over real information) and nonrepresentational (simulacra can go to work outside the framework of a real copy and does not presuppose a correlation with any existing referents). The latter usually manifests in the form of a simulation composed of false information about the state of an object. Simulation and concealment are the two aspects of deception that form the foundation of reflexive interaction. ⁴⁹⁹

The most probable areas where command control and RC can be combined are in the process of decision-making in general and in the planning of combat operations in particular. RC orients on the creation of conditions that increase the effectiveness of command control (here it seems that command control executes missions that support the information packets which the enemy is receiving). In order to RC the enemy, a specially designated force and means should be developed, that is a specific TO&E⁵⁰⁰ with information-psychological confrontation qualifications. These forces would develop and transmit recommendations to the commander on how to use RC measures together with command control actions.⁵⁰¹ These forces would be expected to accomplish the following:

Here the implementation of the RC method at stages of immediate preparation for and execution of the combat mission is carried out by means of sending the appropriate information packets to the enemy. It should be recalled that an information packet within the framework of a RC method is implemented through the totality of simulacra, which are embodied in both a nonrepresentational form (simulation) and a representational form (concealment). 502

⁴⁹⁹ Ibid., p. 38.

⁵⁰⁰ Ibid., p. 39.

⁵⁰¹ Ibid., p. 41.

⁵⁰² Ibid., p. 40.

The method of RC of the enemy is understood by the authors as "the ordered aggregate of information packets sent to the enemy with the goal of creating favorable conditions for executing a combat mission." ⁵⁰³ The information packets are sets of simulacra of a non-existing combat situation, or simulacra that conceal existing combat situations. ⁵⁰⁴ The situation is subject to two sets of reflexion. Information reflexion is how the enemy views friendly forces and their condition based on their system of intelligence and the enemy's assessment of an opponent's potential. Operational reflexion is the principles and features of an enemy's decision-making within the information he has about the condition of his opponent's force and combat operations plans. Combat experience also counts when such decision-making is conducted. ⁵⁰⁵

Meanwhile, friendly forces try to determine the type of information packets that present to the enemy's mind an advantageous model of friendly forces and means. RC goals are determined in the order of those before the commencement of combat operations and those that commence while the combat mission is being carried out. This creates a spatial-temporal RC framework. The synchronization of the methods of command control and RC of the enemy is the basis of the plan for resolving the execution of combat missions.

They noted that the commander needs a special group (outside the TO&E) with information-psychological qualifications to develop and transmit RC measures together with command control ("readiness to execute assigned tasks") actions, which they mentioned in the 2013 article. Commanders should move from secrecy of the combat plan to the development of all-inclusive command and control (synchronizing command control and RC) of the enemy that implements the concrete sequence of information packets to influence conditions. Thus, this article appears to be an updated version of their 2013 article, with the following two diagrams used to in the article to explain how command

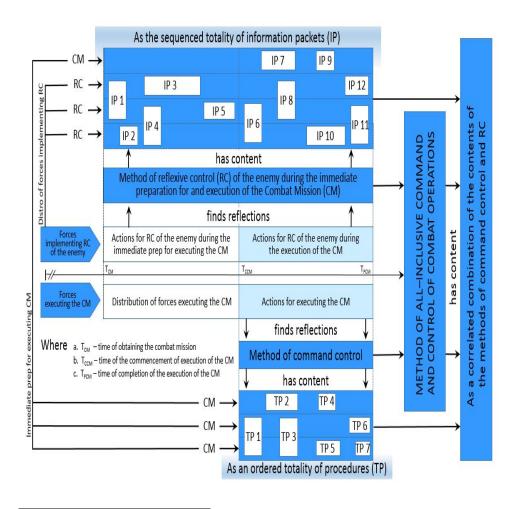
⁵⁰³ Ibid.

⁵⁰⁴ Ibid.

⁵⁰⁵ Ibid.

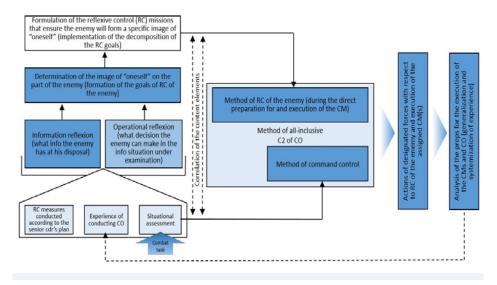
control and RC fit together to manipulate an enemy's decision-making process. 506

In the diagram below, an IP is an information packet, CM is a combat mission, RC is reflexive control, and TP is the ordered totality of procedures.



⁵⁰⁶ V. G. Kazakov and A. N. Kiriushin, "All-Inclusive Command and Control of Combat Operations," *Journal of the Academy of Military Science*, No. 4 2015, p. 39. The diagram above was on page 39 and the diagram on the next page was on page 40.

A Simplified Sketch of the Cycle of Executing a Combat Mission (CM) in the Context of All-Inclusive Command and Control (C2) of Combat Operations (CO)



Russian RC in Modern Operations

Meanwhile the Russian military is exercising other types of RC. For example, it is conditioning the West to Russian exercises along Ukraine's border. After a period of time these exercises appear less important to observers on the other side of the border. Simultaneously, Russia's military looks for a pretext to act. Pretext and conditioning are two sides of the same coin when it comes to RC. They assist one another, with the pretext usually the result of a mistake in an opposing side's understanding of a Russian conditioning exercise.

One Ukrainian officer noted that on occasion Russia summons OSCE observers to their location and then Russia starts a bombardment of a Ukrainian area, knowing that Ukraine will retaliate to stop it. When the OSCE arrives at the Russian location, they record only the response from the Ukrainian side. That is, the Russians reflexively coordinated the OSCE observation. In another case of RC, some Russians have been

known to make phone calls to the UN saying they are locals and that Ukraine is shelling them.⁵⁰⁷ Tis is akin to the cyber trolls spreading misinformation, but in this case cell phone trolls. Since all Russian media outlets report the same information, there is no choice other than to believe what is said in the Russian press, which is a form of RC over Russia's domestic front.

On May 13, 2016, Ukraine's Strategic Communications Center in Kiev briefly explained how Russia uses its longstanding and growing connections into Ukraine's journalism and business sectors to develop anti-government sentiment in Kiev. The Center stated that Russian-backed journalists are contacted by Russia's GRU and told to go to a designated site before an unexpected, controversial event begins there. Once the incident is underway, these journalists are therefore the first to report – in local, national and international media – that the Kiev government is to blame (for this calamity, tragedy or whatever the "event" was). ⁵⁰⁸

In 2016 the book, *Future War*, was published in Russia (it was not available to this author before this study went to the publisher). However, the Russian journal, *Independent Military Observer*, reviewed it under the headline, "The Main Thing—to Force Your Enemy to Fulfill Your Will," 509 so it would not be surprising to find references to RC in the text, as the title implies the use of RC.

Conclusions

The discussion has included some of the old examples of RC, as well as some of the new ones. It is clear that the concept "has legs" and keeps adjusting to modern times, as witnessed through its inclusion in the military's 2011 definition of information war. It has been used at the

⁵⁰⁷ Interview with Anatoliy Kravchuk by Pavlo Vuyets, "General Staff Spokesman Anatoliy Kravchuk on Exacerbation in Donets Basin: Russia Must Keep its Cutthroats in Good Shape," Kyiv *Glavkom*, 25 July 2016.

⁵⁰⁸ Discussion between the author and Mr. Rob Kurz, FMSO, who was present at the Strategic Communication Center in Kiev.

⁵⁰⁹ Oleg Vladykin, "The Main Thing—To Force Your Enemy to Fulfill Your Will," *Nezavisimoe Voennoe Obozrenie (Independent Military Review)*, 30 September 2016.

strategic and tactical levels.

Several of the actual types of RC operations from the Russian side include attacks on physical structures that are blamed on others; the use of pretexts and conditioning; cyber issues (trolls, etc.); decision-making and RC on the part of the National Security Council of Russia; use of media (apparently foreign letters critical of Ukraine or the US were actually written by Russians); the use of analogies; and the use of information packets and simulacrums. Naturally, this list could be extended.

It seems that RC appears everywhere in Russia. It has a role to play as part of negotiations, long- and short-term strategies, analogies, doctrines, tactics, and high-tech systems, among other areas. One should expect that the RC concept will be around long after the disappearance of not only President Putin but more likely than not his successor too. RC remains a successful part of Russian philosophy and will not go away easily.

CHAPTER NINE: THE NATIONAL DEFENSE MANAGEMENT CENTER AND KAVKAZ-2016

Introduction

One of the shortcomings in Russia's defensive posture that President Putin and the military recognized over the past several years was the inability of the MOD to manage or control in a timely manner not only its many assets but also its coordination with other federal bodies. The creation of the National Defense Management Center (NDMC) seems to have resolved both problems, as the center's successes over the past two years indicate. It has integrated advanced information technologies such that it is capable of providing information that enables decision-making proposals that correspond to the situation on a 24/7 basis.

This chapter will describe not only the creation and functions of the NDMC but also how it was applied to the autumn exercise, Kavkaz-2016.

National Defense Management Center

On 1 December 2014 the NDMC officially opened on alert duty in Moscow on the Frunzenskaya Embankment. The facility manages the state's military organization and reacts to crisis situations in Russia and across the globe. One article on the opening stated that the computer capacity of the NDMC was more than three times that of the Pentagon, and that the information is processed at a speed equal to reading "50 Lenin Libraries" per second. It reportedly has three management structures: the center for managing strategic nuclear forces, the center for combat command and control, and the center for managing everyday activities. A colonel explained that the center can constantly monitor 114 training areas, and that alert duty is organized around 48 combat posts. Further, the center's duty forces "constantly exchange up-to-the-minute information with more than 50 federal executive bodies," indicating the reach of the center's activities to control situations and the defense posture of Russia. In order to prepare officers for duty at the center, a

National Defense Management Institute has been established at the General Staff Military Academy. The comprehensive study of defense management problems is covered at the institute. 510

A year later the Deputy Chief of the NDMC, Major General Igor Solokhov, was interviewed on the center's accomplishments over the past 365 days. He noted that Putin approved the center on 8 May 2013 in order to improve the system of centralized management of the state's military organization. NDMC centralization included how the military-industrial complex and regional economic centers would fit into an overall mobilization plan in case of conflict. With regard to the three management centers of the NDMC, the strategic nuclear force center is designed to manage the use of the strategic nuclear forces based on decisions of the nation's top military-political leadership. The center for combat management monitors the military-political situation in the world and forecasts the development of threats to the RF. The center for managing day-to-day activity monitors all areas of activity of the Armed Forces; and coordinates the activities of federal organs to meet the requirements of the troops not belonging to the MOD. ⁵¹¹

Solokhov noted that the **NDMC** hopes improve interdepartmental information collaboration and the equipping of regional and territorial management centers with technical information exchange facilities. They would be united with a single hardware and software system. The basis for information collaboration is Presidential Edict No 601, dated 1 September 2014, which defined the aims and procedures for collecting information relating to questions of Russia's defense. Collaboration is based on bilateral agreements between the MOD and federal executive bodies and on the integration of information systems of federal bodies into the NDMC's hardware and software system. 512

⁵¹⁰ Aleksandr Khokhlov, "The Whole World in the Palm of Your Hand..." *Komsomolskaya Pravda Krasnoyarsk Online*, 12 February 2015.

Oleg Falichev, interview with Igor Solokhov, "Duty Officer for the Country.
 National Defense Management Center Sums Up Results of First Year's Work,"
 Voyenno-Promyshlennyy Kuryer Online, 25 November 2015.
 Ibid.

Lieutenant-General Mikhail Mizintsev, the Chief of the NDMC, reported at a Public Council session that as of October 2015 some 54 federal executive institutions and executive institutions of 29 components of the RF participated in the Tsentr-2015 strategic command-staff exercise. Thus collaboration appears to be improving. Defense Minister Sergey Shoygu supported this improvement a month later, noting that "one important direction of its [NDMC] work is coordinating power agencies" work in the defense sphere...much has been done over the past year, but even more still remains to be done." A normative-law base has been established and a procedure for collecting and exchanging information developed.

Shoygu's comments came at the "First Interdepartmental Conference on Information Interaction," whose presumed goal was to study the experience of collaboration and the search for new forms and methods of its improvement. One report noted that "the holding of the conference will shape new views in the sphere of information technologies and various organizational solutions aimed at the further improvement of the system of interdepartmental information collaboration." Shoygu supported this plan with his statement that two science companies [which are composed of young talented servicemen] of programmers would be created for the NDMC, adding that the volume of software to be created is fairly large. Fortunately, the science companies can be supplemented with other organizations, since "fairly strong programmer-training schools existed in Tomsk, Irkutsk, and Novosibirsk." ⁵¹⁶

⁵¹³ Unattributed report, "General of the Army Sergey Shoygu Took Part in a Plenary Session of the Defense Department's Public Council," *Ministry of Defense of the Russian Federation*, 19 October 2015.

⁵¹⁴ Unattributed report, "Defense Minister Army General Sergey Shoygu Participated in the Work of the First Interdepartmental Conference on Information Interaction," *Ministry of Defense of the Russian Federation*, 19 November 2015.

⁵¹⁵ Unattributed report, "Interdepartmental Conference on Information Collaboration to be Held at the National Center for Management of the Russian Federation's Defense," *Ministry of Defense of the Russian Federation*, 3 November 2015.

^{516 &}quot;Defense Minister Army General Sergey Shoygu Participated..."

In a lecture at the Academy of Military Science in 2015, Chief of the General Staff V. V. Gerasimov discussed the importance of the NDMC. ⁵¹⁷ He made it clear that the organization has a key role to play in military decision-making. In particular, he made his points via the use of two diagrams in his speech, both of which were published in the *Journal of the Academy of Military Science*.

The first diagram [neither are visually reproduced here] analyzed the way to **forecast** the development of the situation, which, as stated earlier, is a function of the NDMC. It noted that the president, the minister of defense, and the General Staff work out decisions. The NDMC collects, generalizes, and analyzes the following eleven types of information, according to the diagram:

- Important events in the world and in the RF;
- Terrorist acts:
- The world's military-strategic and military-political situation:
- The socio-political situation in the RF and CIS
- Information on the status and nature of troop operations;
- The manning of the Armed Forces;
- Measures for operational readiness;
- Emergency situations;
- The status of combat readiness of the Armed Forces;
- The status of combat readiness of the strategic offensive force groupings of foreign countries;
- Information from the data processing center. 518

The second diagram offered a view of the organs of strategic command and control of the RF's military organization. These include

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⁵¹⁷ V. V. Gerasimov, "The Experience of Strategic Leadership in the Great Patriotic War and the Organization of Uniform Command and Control of the Country's Defense under Contemporary Conditions," *Journal of the Academy of Military Science*, No.2 2015, pp. 5-15.

⁵¹⁸ Ibid., p. 14.

the president, with links to the Security Council and the government of the RF (here one finds the federal organs of executive authority, the economic bloc; and the federation organs of executive authority, or power block, which includes the Special Formations [in wartime] and the MVD's Internal Forces [now part of Putin's National Guard and not the MVD], military formations and organs); and directly under the president is the *Stavka* of the Supreme High Command (in wartime), the MOD, the General Staff, and the NDMC.

In 2016 an article in *Military Thought* noted that the NDMC is involved in mathematical modeling of situations via simulations to increase an officer's ability to respond realistically to threats and crises. ⁵¹⁹ Computer forms of operational training (CFOT) at NDMC include command and staff exercises and computer war games. Combat actions are carried out via specific software and modern methods of mathematical modeling of operations, often conducted in different forms. The operational basis for CFOT remains the nature of armed struggles and the various forms and method of combat actions to confront them. Also considered are threats, trends in the development of an adversary's armed forces, and the probable nature of future war. ⁵²⁰

A late 2016 TV report added more information about the NDMC. It noted that counterpart branches exist all over Russia. There is a navy command center in St. Petersburg and mini-centers for each service arm and each military district, with the latter reaching down to brigade level. Duty is handled by four shifts, and a banner in the hall describes which shift is on duty by a letter and number on the back of the banner. There are two helicopter pads on the roof and a hovercraft dock on the river opposite the building. The NDMC has 15 separate halls. There is a daily heads-of-department conference. There are 8 institutions that provide up to 500 recruits yearly for the Center. ⁵²¹

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⁵¹⁹ A. B. Mikhaylovsky and H. I. Sayfetdinov, "Computer Learning Forms of Officials of the National Defense Management Center of the Russian Federation," *Military Thought*, No. 5 2016, pp. 57-63.

⁵²⁰ Ibid.

⁵²¹ Rossiya 24 Television, 30 December 2016.

A super-computer center was shown during the TV program, which can monitor situations and make assessments of situations, translate 6 languages at a time, and has a total storage capacity of 236 petabytes and a processing power of 16 petaflops. According to the report, this makes it the most powerful computer of its kind in the world. The computer has several layers of protection from hacking, and the building's physical security includes gates, video surveillance, and special detector systems for toxic or radioactive agents, to include a "Rodion" system that can detect any foreign SIM card on the premises; and "white noise" generators that prevent anyone outside from hearing what is going on within. Finally, everyday a heads-of-department conference takes place; and there are eight institutions that provide up to 500 recruits yearly for the Center. Another report noted that the Center can integrate 73 federal executive bodies, the governments of all 85 constituent entities, and 1320 state corporations and defense industry facilities. 522

Kavkaz-2016

In September 2016 the Russian military began its Kavkaz-2016 exercise. This strategic command staff exercise involved warships, aircraft, artillery, and armored vehicles throughout the Southern Military District, and included not only the North Caucasus and Southern Russia, but all of the Black and Caspian Seas as well. A rehearsal of mobilization readiness and territorial defense took place. 523

A few days earlier the Bank of Russia, the Ministry of Finance, the Ministry of Industry and Trade, and other federal executive bodies were inspected for their ability to work under wartime conditions. The idea was to ensure that communications worked and that no one would be deprived of resources. The NDMC was in control of the operation, and a software system was being constructed to link information resources and all ministries and departments. The NDMC also monitors

⁵²² President of Russia Website (in English), 22 December 2016.

⁵²³ Nikolay Grishchenko, "Kavkaz-2016 Exercises Testing New Types of Weapons," *Rossiyskaya Gazeta Online*, 5 September 2016.

defense plants and construction facilities. The evacuation of organs of power to bunkers was also rehearsed.⁵²⁴

During the exercise it was reported that a "directorate of a military district (for wartime) was formed for the first time in many years during the Kavkaz-2016 strategic command-post exercise." This means the exercise was designed to test the integration of assets in time of war. The military district, created on the basis of a joint strategic command, ensures a martial law regime, mobilization resource preparations, and logistical support. State reserve enterprises, industrial and repair enterprises, and plants and factories were involved, "regardless of the forms of ownership." Special attention was devoted to logistic tasks of civilian administrations. To prevent conflicts of interest, Putin signed an edict that apparently allows the MOD to "confiscate the entire rolling stock of joint-stock companies or the Russian Railroad in the event of military operations." 527

The military district thus conducts territorial defense with the help of other ministries and departments, such as the National Guard or MChS. Provisions are implemented to repulse or prevent aggression against Russia. Reservists were called up as well, altogether nearly 4,000. Not only did they guard important facilities but sought to destroy illegal armed formations. Most important, however, was that the leadership over various components was rehearsed for the first time. ⁵²⁸

In a 14 September wrap-up, Gerasimov stated that, while taking into account the Syrian experience, the exercise "rehearsed a massive air

⁵²⁴ Yekaterina Zgirovskaya and Yelena Malysheva, "Wartime Central Bank. Ministries and Central Bank Become Involved in Surprise Inspection of Russian Army," *Gazeta.ru*, 29 August 2016.

⁵²⁵ Interview with Lieutenant General Aleksandr Romanchuk, "Experiment Deemed Successful," *Voyennyy Vestnik Yuga Rossii*, 7 October 2016. ⁵²⁶ Ibid.

⁵²⁷ Oleg Falichev, "The Long Arm of the Bastion: Why the Strategic Command Staff Exercise Kavkaz-2016 Elicited Heightened Activity of Foreign Intelligence Services," *Voyenno-Promyshlennyy Kuryer Online*, 21-27 September 2016.
⁵²⁸ Ibid.

strike, defense from cruise missiles, coordination with territorial defense subunits, and the [involvement of] information operations troops."⁵²⁹ While noting that troop skills were honed based on actual military conflicts, including those in Syria, the emphasis was on weaponry, with Gerasimov stating that "Russia has been testing all state-of-the-art weapons in Syria. We have tested all models of weapons, literally all, in Syria."⁵³⁰ The exercise involved 120,000 servicemen, 400 pieces of combat equipment, 90 tanks, 15 combat ships and vessels, 500 tons of munitions, and 35,000 tons of fuel. He added that there are now 66 battalion tactical groups (BTG) in the Russian army, with 125 planned by 2018. Presently there are two BTGs in a brigade, with each battalion composed of 400-500 soldiers with reinforcements, that is, tanks, mortars, and other types of equipment. Coordination with other Russian agencies was refined as well.⁵³¹

Of interest was that nonstandard (atypical) decisions were emphasized, as there were no scripted solutions. Gerasimov added that as military art develops, defensive operations must be active, since the boundary between defense and the offense is becoming increasingly blurred. Commanders must be able to foresee how to incorporate preventive offensive operations in certain sectors. Finally, with regard to missiles and mobility, it was noted that S-400, Kalibr, and Bastion systems were fired, and the Strelets reconnaissance and target attack system was exercised along with air, rail, river, and sea operations. 533

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⁵²⁹ Maksim Solopov, "Kavkaz with a Syrian Bias: The General Staff has Summed Up the Results of the Kavkaz-2016 Exercises," *Gazeta.ru*, 14 September 2016. ⁵³⁰ Ibid.

⁵³¹ Ibid. An *RIA Novosti* report on the same day quoted Gerasimov as noting that a battalion tactical team (BTG) is a reinforced battalion with from 700-900 servicemen. See "The Armed Forces Will Increase by Twofold the Number of Reinforced Battalions with Contract Servicemen," *RIA Novosti*, 14 September 2016.

⁵³² See for example, Aleksandr Tikhonov, "In the Southwest Sector," *Krasnaya Zvezda Online*, 16 September 2016; and Oleg Falichev, "The Long Arm of the Bastion: Why the Strategic Command Staff Exercise Kavkaz-2016 Elicited Heightened Activity of Foreign Intelligence Services," *Voyenno-Promyshlennyy Kuryer Online*, 21-27 September 2016.

⁵³³ Ibid.

Gerasimov stated that territorial defense had been a center of attention for two years. The exercise solved many of the questions associated with that focus. Arms, munitions, missiles and so forth were stockpiled, other agencies participated in organizing territorial defense, and important areas or facilities secured, which is the mission of territorial defense elements. A reservist system for mobilization training was approved. The repulsion of massed airstrikes, methods of combating cruise missiles, and a focus for the first time on enemy information warfare capabilities also marked the exercise. In regard to the latter, Gerasimov noted that information warfare at some stage could even prevail over traditional military engagements. Kavkaz-2016, he concluded, "was the latest step in the development of the system of territorial defense."

Defense Minister Shoygu stated that "The exercise demonstrated the high readiness of the federal ministries, Russian regions, and enterprises to fulfill their tasks." ⁵³⁵ In this way representatives of bodies of state authority and local self-government bodies received the necessary practice. Such "bodies" included the Bank of Russia, the Industry and Trade Ministry, and Rosrezerv ⁵³⁶ (which ensures mobilization needs and supports the economy).

Conclusions

In his year-end speech to the Defense Collegium, Shoygu noted that the command and staff exercise was the most ambitious training initiative of the year. He stated that it featured an effort to relocate divisions from 4 armies at a distance of 2500 kilometers and to deploy command units at new theaters of operations. To Shoygu, this confirmed that the military command structures could manage the situation if a national security threat emerged in the south of Russia. 537

⁵³⁴ Aleksandr Tikhonov, "In the Southwest Sector," *Krasnaya Zvezda Online*, 16 September 2016.

⁵³⁵ *Interfax* (in English), 12 October 2016.

⁵³⁶ Ibid

⁵³⁷ Website of the President of Russia (in English), 22 December 2016.

In 2017 the exercise will be staged in the Western Military District, opposite the Baltics and Ukraine. This operation will increase the heartbeat of those on the Baltic side of the border, as the constituents will wonder just what plans Russia has in store.

CHAPTER TEN: RUSSIAN ACTIONS IN SYRIA

Introduction

On 30 September 2015 Russian air operations began in Syria. Earlier, a military equipment buildup had taken place, lasting over several weeks, at an airfield near Latakia and at the naval base at Tartus, the latter designed to serve Russia's air, naval, and ground (naval infantry) components.

Why did Russia take these preparatory steps and then intervene in this particular conflict at a time when Kremlin leaders were heavily focused on Eastern Ukraine and potential problems in the Baltics? The rationale appeared simple: first and foremost, to support the Bashar Al-Assad regime, which, according to some Russian accounts, had lost control of up to 70 percent of Syrian territory to the Islamic State (ISIS) in September 2015. Second, Russia noted with alarm that its southern belly was again exposed to the return of extremists who had fought on the side of ISIS against the Syrian government and were now bringing back to Russia both their ideology and lessons learned from fighting there. After quieting the near decade-long struggle inside Russia in Chechnya, which is very near the region of conflict, Russia's leaders did not want a new threat recreated there or spread to other parts of the country. Both points appeared to have spearheaded the Kremlin's decision-making and influenced its resolve to intervene.

Upon further examination after several months of fighting, however, other more general reasons beyond this initial rationale began to appear. They can be categorized as geopolitical, national, and military:

 Geopolitical: restore Russian influence in the Middle East as its main arbiter; provide support to its best friend in the region, Syrian President Bashar Al-

⁵³⁸ Yuriy Gavrilov, "Syria: Russian Thunder. The Commander of the Russian Federation's Troop Grouping in Syria Has Given His First Interview to *Rossiyskaya Gazeta*," *Rossiyskaya Gazeta*, 24 March 2016.

Assad; keep the US from exerting too much influence over the region; place the US in a conundrum—does it overextend its influence in Syria at the expense of Afghanistan, Iraq, and a tired force?; deflect attention from Russian activities in Crimea, Ukraine, and elsewhere on its periphery; conduct integrated operations with Iranian, Hezbollah, and Syrian forces; and exert pressure on the European Union.

- National: use cooperation with the US in Syria as leverage to perhaps curtail sanctions and, as a result, energize Russia's failing domestic economy; divert attention from an increasingly unpopular conflict against brother Slavs in Ukraine; and reassure the population that the Kremlin is directing its attention toward the emerging threat to the south of the nation.
- Military: test new weaponry and transport capabilities and demonstrate new military deterrence means (with new weapons) as the military continues to implement reforms and reequip the force after years of neglect; demonstrate to the international community professional competency that was lacking in Georgia; nations/groups work with other (Iran/Hezbollah, etc.) and establish new alliances: learn to identify the forms and methods that insurgents/terrorists use in combat; demonstrate the command and control capabilities of the new National Defense Management Center (NDMC) in Moscow and its ability to integrate combat assets; and destroy the financial (oil facilities, etc.) means supporting ISIS's operations.

The emphasis in Syria is on military operations and not nonmilitary measures, which is of note, since Chief of the General Staff Valery Gerasimov stated in 2013 that nonmilitary activities were used over military ones by a 4:1 ratio in today's context. Instead, the testing of

new weaponry and the heavy use of the military's Aerospace Force (space, air force, and air defense assets) was emphasized. The primary use of aerospace operations also confirmed Defense Minister Sergey Shoygu's assertion that they represent the center of gravity of modern conflicts. There appeared to be little cyber or propaganda input other than efforts to persuade Russia's domestic population of the validity of the military's deployment. There was some attention provided later in the campaign to humanitarian operations, but overall the 4:1 ratio seems to have been reversed.

The focus on testing new equipment was prioritized not only under Syria's battlefield conditions, but also in exercises. For example, the early September 2016 Kavkaz exercise (almost one year after the start of operations in Syria), worked on many of the lessons learned from the Syrian experience. In regard to Syrian lessons learned, it was stated that

The troops also obtained the experience of the disorganization of the illegal armed formations' command and control systems, gaining and maintaining information supremacy, the coverage of the troops from possible air strikes, the security and defense of basing airfields, the restoration of constitutional law and order, and the transfer of liberated territory to the local authorities. ⁵³⁹

This chapter will only discuss the military aspect of the Russian intervention. It will analyze the equipment that Russia has used in the region from both Russian and Western sources; the forms and methods of fighting used by ISIS as detailed in Russian articles; and the thinking behind the partial pullout of forces in March 2016, among other issues. 540

⁵³⁹ Maksim Solopov, "Kavkaz with a Syrian Bias: The General Staff has Summed Up the Results of the Kavkaz-2016 Exercises," *Gazeta.ru*, 14 September 2016.

⁵⁴⁰ The thinking of the General Staff's Main Operations Directorate about actions on the ground and in the air is located at Appendix One.

Russian Equipment Used in Syria: Russian and Western Sources

The lack of ISIS air defense weaponry has made Syria's airspace an ideal testing ground for air operations. Some have noted that after the withdrawal of some fighter jets in March, helicopters replaced them, and perhaps this is yet another way to ensure rotary as well as fixed-wing aircraft get tested. Another important aspect of Russian involvement in Syria is that it has allowed it to test new force models and new weapons.

Force groups appear to have included covert private military companies. For example, Islamists have posted video images of those killed and, while Russia denies these soldiers are part of their security services, reporters note that they probably are aligned with private military companies in Russia. A BBC report stated that they belong to a company known as Vagner, an organization consisting of a battalion armored vehicles, with infantry weapons, heavy weapons, communications, man-portable air defense and security companies, and several hundred men. 541 Several other equipment types used in Syria are described below, divided into those the Russians report and those reported on in the West.

Russian reporting: Gerasimov noted that while the use of military force and being proactive are essential, victory also depends on a combination of political, financial, ideological, and information resources of the state, since ideology can infect people's minds. ⁵⁴² Thus an all-round approach to security must be maintained.

The actual main military systems discussed were EW means, precision-guided weaponry, and air operations. There was also a mention of Orlan and Forpost UAVs being used in Syria for aerial reconnaissance and targeting for aviation and artillery units. They make it possible to detect up to two groups of targets from altitudes of 1500-2000 m, with an airspeed of up to 100 kmh, a flight range of up to 250 km, and a TNT warhead of up to 15kg.⁵⁴³

⁵⁴³ *Interfax-AVN Online*, 9 September 2016.

⁵⁴¹ BBC Monitoring (in English), 29 March 2016.

⁵⁴² *Interfax* (in English), 27 April 2016.

EW: Russia considers its EW missions as follows: to defend against possible air and ground attacks; to protect personnel and equipment against radio-controlled demolition charges and improved explosive proponents; to protect friendly electronic equipment; and to constantly monitor electronic equipment. EW is viewed as asymmetric weapon for new-generation wars. It is reportedly capable of shutting down high-tech arms and equipment. Assets in Syria include the Krasukha-4 ground-mobile complex, which can suppress frequencies emitting reconnaissance and data transmission from 150-300 km. It works against Lacrosse and Onyx satellites, AWACS, Sentinel, and UAVs. The Khibiny airborne multifunctional EW complex works against reconnaissance and command and control assets. The II-20 ELINT and EW aircraft have sensors, antennas, and other equipment to support missions. The Borisoglebsk-2 has also been reported to be in Syria. The Rychag, Moskva, Rtut, and Porubshchik complexes suppress radars and disrupt guidance, command and control, and communications systems. The latter is based on the Il-22. The Infauna EW complex and small Lesochek jammers can combat radio-controlled demolition charges, improvised explosive devices, and precision-guided munitions, and disrupt cellular communications. The Vitebsk active jammer is also in use. 544

Aerospace and Precision weapons: Putin has personally praised the performance of Russian precision weaponry and aircraft systems in Syria. In particular, he pointed out the performances of the Su-30SM, Su-34, and Su-35 planes, and the Mi-28 and Ka-52 helicopters. He added that "air-launched and sea-launched long-range precision weapons were used in combat conditions" for the first time. ⁵⁴⁵ Journalists were more skeptical. One report noted that only at the end of 2016 would external targeting pods be placed on aircraft, first for the Su-30SM and Su-35

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⁵⁴⁴ Anatoliy Sokolov, "On the Front Line: Umbrella over Syria: Russian EW Assets Confirmed High Effectiveness and Can Be Considered an Asymmetric Weapon for New-Generation Wars," *VPK Voyenno-Promyshlennyy Kuryer Online*, 25 May-31 May 2016.

⁵⁴⁵ Interfax (in English), 11 May 2016.

fighters and the modernized MiG-29.⁵⁴⁶ Another report, also noting that work on suspended containers have dragged on and are not in the inventory of strike aircraft, did state that the precision "weapon of choice" of Aerospace Forces was the KAB-500S. The main precision-guided munition carrier was the Su-34. Another report noted that the Su-34 may replace not just the Su-24, but also the Su-25 ground attack aircraft. Perhaps for this reason, all of the Su-25s appeared to be pulled from Syria. The Russians would then test the Su-34 in the role of a ground-attack aircraft. Also highlighted were the use of sea-launched Kalibr-NK cruise missiles (46 in all, according to the authors) and the successes with Su-25 bombers and Mi-24P helicopters in direct fire support roles to assist Syrian ground forces.

Reported shortcomings included the absence of JDAM kits, the lack of airborne refueling tankers, the difficulty of targeting mobile objects, and the use of strike UAVs equipped with guided missiles⁵⁴⁸ (this, the authors noted, is the weakest aspect of the Aerospace Forces, although this assertion is questionable due to the number and characteristics of UAVs in Russia's inventory, listed elsewhere).⁵⁴⁹ Another source stated that there were problems with helicopters in Syria and that these issues would be corrected immediately. Meanwhile work will continue on the new generation helicopter, codenamed Minoga, which will be smaller than the Ka-27 but will have the Kamov configuration.⁵⁵⁰

⁵⁴⁶ Aleksey Mikhaylov, "'The Army'' The Russian Aerospace Forces are Testing Aircraft Sniper Sights: The Cooperation of Rostekh and Roskosmos Enterprises Permitted the Development of the New Complex for Precision Bombing," *Izvestiya Online*, 6 May 2016.

⁵⁴⁷ Unattributed report, "Russia's Aerospace Forces and Industry Will Transition to the Full Cycle of Su-34 Servicing," *RIA Novosti*, 25 June 2016.

⁵⁴⁸ Aleksey Ramm and Anton Lavrov, "Retribution without Refueling: Operation in Syria Reveals Weak Points in Aerospace Forces," *VPK Voyenno-Promyshlennyy Kuryer Online*, 6-12 April 2016.

⁵⁴⁹ For example, see *Russia: Military Strategy Impacting 21st Century Reform and Geopolitics*, Timothy Thomas, Foreign Military Studies Office, 2015, pp. 130-146. ⁵⁵⁰ *Moscow TASS*, 12 May 2016.

Western Reporting: Western reporting focused primarily on equipment and on the proclamations of Putin and important members of the MOD.

Ground Support: Russian arms supplies to Syria appear to have included the T-90 main battle tank with its Shtora countermeasure system, the Iveco LMV-M65 light armored vehicle, BMP-2 infantry fighting vehicles, body armor, and up-armored T-72 main battle tanks. ⁵⁵¹ Another report stated that Russia's 24 Television Network showed a TOS-1A and two BM-30 Smerch multiple rocket launchers firing, purportedly in support of a Syrian advance on Tadmur. ⁵⁵² The TOS-1A is used to support advancing armor. These 220mm rockets utilize both incendiary and thermobaric rounds. The system is composed of 24 tubes, with warheads close to 45 kg in weight and a range of a 0.5-6 km. Putin confirmed on 17 March 2016 that Russian Special Forces, artillery, and UAV units had been operating in Syria. He awarded medals to several people from these units in a Kremlin ceremony. The same report noted that some Russian servicemen killed in Syria may have belonged to the Russian Military Intelligence Service (GRU). ⁵⁵³

Aerospace Support: A March 2016 report on the withdrawal of Russia's air force from Syria indicated that not only did many of the aircraft (with the exception of the Su-25 strike aircraft) still remain, but also several seem to simply have been rotated back to Russia and replaced by the same aircraft types. In addition, more helicopters (Mi-35Ms) seem to have been added to the base at Humaymim in order to offset the loss of the Su-25s. 554

⁵⁵¹ Tim Ripley, "Tilting the Balance: Russian Syrian Ops Six Months On," *Janes Defense Weekly*, 16 March 2016, p. 21.

⁵⁵² Tim Ripley, "Syrian Forces Close in on Palmyra," *Jane's Defense Weekly*, 30 March 2016, p. 4.

⁵⁵³ Jeremy Binnie, "Putin Announces Mission in Syria is 'Generally Complete'...and Reveals Units Deployed There," *Jane's Defense Weekly*, 23 March 2016, p. 5.

⁵⁵⁴ Jeremy Binnie and Sean O'Connor, "Analysis: Russian Air Group in Syria Remains a Powerful Force," *Jane's Defense Weekly*, 30 March 2016, p. 6.

Another report stated that Russia's air force had helped the Syrian Armed Forces in two ways: through airstrikes and through the collection of aerial intelligence. The Ilyushin Il-20, an offshoot of the US's P-3 Orion, was used along with the Tu-214R SIGINT targeting and collection aircraft. Aerospace Forces (VKS) Commander Colonel General Viktor Bondarev noted that "not a single target had been missed since the campaign was launched on 30 September 2015." Since Russia did not reply on precision-guided munitions, and used "dumb" bombs often, this statement is questionable. As the journalist writing the article noted of the claim, it can be given credence if "by 'target' he is referring to Syria itself," then perhaps Bondarev's assertion is true.

Air defense systems have been deployed at the Humaymim Air Base and on ships in the Mediterranean. The former include the S-400 long range and the Pantsir-S short-range systems. ⁵⁵⁷ A 23 March report stated that Mi-38N and Ka-52 helicopters were seen for the first time at the air base in TV footage. They usually operate in pairs. ⁵⁵⁸ On 27 March Russia's *Zvezda TV's* footage showed an Iskander missile system deployed at Humaymim. It is thought that this is the Iskander-K, which is identical to other versions but carries two cruise missiles instead of ballistic ones. Its range is 500 km, and it may have been deployed to offset the withdrawal of some Russian strike aircraft. This also may be a way to operationally test the system under real wartime conditions. ⁵⁵⁹

Finally, an April report noted that the Su-34's performance in Syria has generated interest among export customers. It is the only platform to have delivered precision-guided munitions in Syria. It is

⁵⁵⁵ Ripley, "Tilting..."

⁵⁵⁶ Gareth Jennings, "Russia Claims 'Total Accuracy' in Syrian Campaign," *Jane's Defense Weekly*, 23 March 2016, p. 8.

⁵⁵⁷ Jeremy Binnie, "Putin Announces Mission in Syria is 'Generally Complete'...," *Jane's Defense Weekly*, 23 March 2016, p. 5.

⁵⁵⁸ Ibid., p. 4.

⁵⁵⁹ Jeremy Binnie, "Iskander TEL Spotted in Syria," *Janes Defense Weekly*, 6 April 2016, p. 4.

equipped with NIIP NO12 radars and Khibiny L-175V EW suites, and the designers claim it can jam Aegis combat control systems. 560

A 29 September 2016 London Mail report was direct, talking about Russia's "obscene array of weapons." These included barrel, napalm, thermobaric, cluster, and phosphorus bombs, which have turned Aleppo, a World Heritage Site, into a "place of extreme violence and death, a hell in which explosives, chemicals, and fire rain from the sky, killing and burying alive its inhabitants in their hundreds, with many more maimed or made homeless." Then-US Secretary of State John Kerry warned Russia that if it did not stop the bombing the US would suspend talks. 562

Forms and Methods of Terrorists: Two Russian Reports

In February 2016, in an article in the Russian military journal, *Armeiskii Sbornik (Army Journal)*, a general outline of the character of the emerging fight in Syria was offered from the aspect of terrorist forms and methods of fighting. It was noted that the actions of ISIS, like many other operations over the past two decades, were aimed at seizing territory, destroying a government, and/or reducing a country's economic potential. Irregular terrorist military formations were often outfitted with weapons purchased on the black market or stolen from a nation's resources through insider connections. Specific trends were identified for confronting terrorist forces:

 ISIS and other terrorist groups appear well outfitted, often no worse than Syrian forces, so battles will take place;

⁵⁶² Ibid.

⁵⁶⁰ Reuben F. Johnson, "Syrian Campaign Drums Up Interest n Su-34," *Janes Defense Weekly*, 6 April, 2016, p. 5.

⁵⁶¹ Unattributed report, "Apocalypse Aleppo: How an Obscene Array of Weapons That Destroy Internal Organs, Stick to Skin, and Burn at 2200F and Suffocate Victims with Smoke Is Turning Syria's Second Largest City into a Slaughter House," *London Mail Online* (in English), 29 September 2016.

- Professional men from defeated armies around the world help plan ISIS's operations and their implementation, so defeating them will not be easy;
- The emergence of religious fanaticism requires strong moral and psychological preparation by forces opposing them;
- Attacks on terrorists need to be sudden to prevent them from scattering or seeking underground shelter;
- Mobile operations on an extensive front will predominate for both sides in offensive and defensive operations, using preemptive fires and radio-electronic strikes;
- Terrorists tend to shift to ground-underground operations when confronted with an opponent with superior technical capabilities, ⁵⁶³ so counter-underground operations must be studied.

The makeup of fighters on both sides is a conglomerate of allies. In Syria, for example, Al-Assad's army is composed of national militias, armed Syrian Kurd formations, Hezbollah detachments from Lebanon, Iranian military units, and the Syrian and Russian military establishments. Lines of contact are unpredictable and concentration of forces on a main axis of approach is difficult. Russia's aerospace operations played a key role in the fight against irregular armed formations, along with UAVs and reconnaissance satellites. The terrorist grouping is similarly composed of fighters from a variety of nations.

Initially the Russian aerospace forces targeted terrorist infrastructures, such as field camps, warehouses, and so on in order to help prevent the sale of goods such as oil. A second focus was roads,

⁵⁶³ V. Kiselev, G. Pis'menskii, and V. Popov, "Tendencies and Possibilities: Some Forms and Methods of Conducting Combat Operations in Syria," *Armeiskii Sbornik*, February 2016, pp. 3-7. The author would like to thank Dr. Harold Orenstein for his translation of this material.

⁵⁶⁴ Ibid.

since they are the main avenues of advance or movement of precious cargo. In Syria, 26,299 km of road are hard surface and 10,078 are not. There are also 2700 km of railroad. These arteries dictate potential areas of concentration of an enemy force. Tactics to control roads were thoroughly developed in the past during the Soviet Union's war in Afghanistan's mountainous areas. Now there is a Russian study underway for controlling roads in desert terrain, where brute force seems to prevail over employing methods the enemy does not expect.

The authors note that one "method" to study from a Russian perspective is how to conduct a cleaving strike against an irregular force, that is, how to penetrate into the depth of its reserves in order to break its operational and potentially its strategic defensive stability. This requires new operational and strategic approaches. However, at the present time, Syrian forces can only conduct offensive operations at the tactical level and cannot have operational success, which requires strong operational reserves. The maximum tactical unit capable of organizing and conducting an operation is the brigade, which does not always have sufficient forces and means to completely defeat an enemy. Precision weaponry is not as useful against an enemy using only automatic rifles and antitank weapons and relying on maneuver warfare, so force-onforce battles occur often. Irregular forces have learned to dissipate after spotting a UAV overhead. In closing, it was noted that an enemy without regular formations or even tactical cooperation among its force groupings, but ideologically motivated, can conduct successful combat operations for a long time against a regular army under conditions of hybrid war.⁵⁶⁵

In July 2016 *Armeiskii Sbornik* carried an article on the first 150 days of combat operations in Syria, discussing the general situation confronting its armed forces and some of the peculiarities of ISIS operations. ⁵⁶⁶ Under consideration were ways that ISIS operated as well as Russia's perceived view of shortcomings of the Syrian Armed Forces.

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⁵⁶⁵ Ibid.

⁵⁶⁶ V. Kiselev, "Some Results of Combat Operations in Syria," *Armeiskii sbornik* (*Army Journal*), No. 7, 2016, pp. 8-18. The author again would like to thank Dr. Harold

First, there was mention of the fact that Syria's troops could not conduct large-scale operations on an operational scale against the terrorists due to the limited number of the Syrian Army's military formations (similar to the observation above). Large-scale mobilization was not feasible, since most of the male population wants to fight for the regions where they live. Also, under contemporary conditions, the forms for employing the armed forces (such as the operation) require the use of inter-service force groupings. These are not present in Syria, where, due to a lack of combined-arms formations, the Syrian command uses special operations forces as infantry units and formations. This requires Russia to adapt to the shortcomings of the force with which it is partnering in the fight.

Second, there are not only many different countries, but also different religious denominations taking part in combat operations on both sides. Iranian units, Lebanese Hezbollah, and representatives from Afghanistan (Khazars, of whom, according to various data, there are 3000-10,000) are fighting with the Syrian Armed Forces; Syrian Kurds are fighting on their own territories; and the terrorists are employing combatants from several European countries, Asia, and even Africa. This requires that Russian commanders prepare their troops for operations against various types of international terrorist organizations.

Third, there are countries who, in pursuit of their own interests, desire to destabilize the international situation and support the terrorists. These countries supply terrorist organizations with financial support through nongovernmental organizations and with combat equipment and arms, including the most contemporary. Here the authors are accusing the West without naming it.

Fourth, the strong ideological and psychological base of the terrorist elements was highlighted, noting that this base is developed in

Orenstein for his translation of this material, all of which is located on pages 16-18 of the article.

peacetime, supported by centers of nontraditional Islam. Here Saudi Arabia and Qatar were singled out as centers of such support.

Fifth, it is clear that terrorist organizations are fully capable of performing both defensive and offensive operations, even without air support and an adequate amount of artillery and armored vehicles. Specifically, it was noted that on 15 February 2016 "terrorist detachments undertook a number of offensive operations in the Homs region, although their other detachments in other provinces were generally in a very difficult situation." ⁵⁶⁷

Sixth, terrorist groups appear to remain in specific regions and only coordinate the most important missions with other formations. This changes, however, when a charismatic leader is killed. Then fighters scatter or lose their positions. This is important to consider when planning and conducting combat operations against terrorist detachments.

Seventh, terrorists have organized a strong system of counterintelligence on captured territories. Not only the armed formations of terrorists but also the local population becomes involved. The latter has even been reported to have been responsible for reporting scouts from government forces in the area.

Eighth, Russian fighters must remember that terrorists do not observe human rights and that civilians in combat regions are often used as human shields. In eastern Guta (a suburb of Damascus), the eastern part of Aleppo, and other places where fighters were surrounded, civilians remained in their homes. Using such people as shields, the terrorists continued their bombardment, raids against government troops, and exchanges of fire.

Ninth, the Syrian Army appeared unable to conduct an offensive method such as the penetration ("maneuver" in the armies of the NATO countries). Combat operations were more focused on "squeezing out"

⁵⁶⁷ Ibid., p. 17.

fighters with fires. Maneuvers such as envelopments or flanking actions have a purely psychological effect and are used at the lowest tactical levels.

Finally, during this period, air and air-mobile assaults were not attempted. This reluctance has to do with the lack of decisive penetrations and defeat of the enemy even to the depth of the tactical defense. The line of contact consisted of individual positions and checkpoints instead of trenches. In urban conditions, the defense of individual buildings or blocks are developed by terrorists in combination with powerful surface and underground lines of communication. These structures are difficult to penetrate, since multiple actions are required to capture buildings and structures, and to sweep underground lines of communication and engineer structures.

The war verified the continued importance of Syria's main strike force, its tank subunits and units. Tank superiority enables decisive victories, but it is difficult to create strong tank groupings. In conclusion, tactics and operational art continue to be relevant and important for modern armed conflicts. Their careful study is required if new tactical procedures are to be developed, even against a technically inadequately equipped enemy.

First the Pullout, then the Declaration to Stay Indefinitely

On 14 March 2016 the Kremlin announced that the main part of Russia's forces in Syria would return to Russia. However, what the announcement really did was to scare Syrian President Bashar Al-Assad into more reliance on Russia instead of taking its presence for granted. As *The Economist* reported

The bombing campaign has been massive, but Russia has also done much else. Palmyra, recently recaptured from Islamic State, now hosts a small Russian base, ostensibly for sappers clearing the area of mines. Russian Special Forces are involved in intelligence and targeting. Instructors train Syrian counterparts. Russian officers have waded into local politics, brokering ceasefires. The

Russians are here for the long haul: when the defense ministry ordered medals for the Syria campaign, it asked for over 10,000.⁵⁶⁸

Without Russia's presence Al-Assad's forces are not capable of thwarting the terrorist offensive.

Only a week or so after the limited pullout, disagreements arose between Russia and the US, at least from the Russian perspective. The US appeared unable or not ready to have a substantive discussion on joint unilateral actions, according to Sergey Rudskoy, Chief of the Main Operations Directorate of the General Staff. He noted that the US delay in discussing a joint mechanism to handle cease-fire violations would result in Moscow beginning a unilateral application of the rules of the agreement, since the US (according to the Russians) appears unprepared to have a substantive discussion. Sergey Zhigarev, First Deputy Head of the Duma Defense Committee, stated that the US does not control the situation, implying that Russia's appeal is a type of deadline meant to be a negotiating tactic to speed up the deliberative process used by the US. ⁵⁶⁹

In August the Russian deployment took on a new look. First, it was announced that Putin, through Deputy Defense Minister Nikolay Pankov, submitted to the State Duma for ratification an agreement for the long-term deployment of the Russian Armed Forces' air group in Syria. Syria will provide the infrastructure and grounds free of charge. Personnel, transport facilities, and aircraft of Russia's air group will not be subject to inspection by Syria's border and customs authorities, and they and their families will be accorded immunity and privileges similar to diplomatic representatives. No claims will be allowed against the air group in connection with their activities. Perhaps most important, the agreement is for "an indefinite period and shall terminate on the

⁵⁶⁸ Unattributed report, "The Withdrawal that Wasn't," *The Economist*, May 14 2016, p. 43.

⁵⁶⁹ Yuriy Gavrilov, "General Staff Authorized to State," *Rossiyskaya Gazeta*, 22 March 2016.

expiration of one year from the date of receipt of one party's notice of its intention to terminate this document."⁵⁷⁰ In other words, Russia is here for the long haul.

Second, Russian strikes against targets in Syria had been delivered from Iranian airfields. The Russian use of these assets was designed to save expenses and not exceed the MOD's budget limits, while improving cooperation between Russia and Iran. Use of Iranian airfields saves fuel and allows the Russian air force to enlarge its bomb load.⁵⁷¹

Third, requests were sent to Iraq and Iran to use their airspace for the overflight of cruise missiles during an exercise that the Russian MOD was conducting in the Caspian Sea and the Mediterranean with warships armed with Kalibr cruise missile. Thus, overall, the pullout has not happened as many expected. Instead, an increase in long-term deployments via negotiated agreements has taken place.

September 2016 to January 2017: A Few Notes

In this five-month period there were only a few items to report. Two were tactical innovations, some had to do with weapon developments, and then there were a few miscellaneous but interesting items.

With regard to tactics, Russia's press celebrated what is known as a "tank carousel," described as follows:

A tank platoon engages targets by volley first, then pulls back to reload, and at this time the next platoon moves up to firing positions and continues volley fire; then the next

⁵⁷⁰ Ivan Yegorov, "They Will Be There for as Long as Necessary. Russia is Preparing to Ratify the Agreement on the Air Base in Syria," *Rossiyskaya Gazeta Online*, 9 August 2016.

⁵⁷¹ *Interfax* (in English), 16 August 2016.

⁵⁷² *Interfax*, 15 August 2016.

platoon joins battle. That way tank subunits support high intensity of fire engagement.⁵⁷³

In October another tactic was introduced in the press. It appears that Russia is developing what it terms to be super-light motorized rifle brigades, based on lessons learned from the Syrian Armed Forces. Soldiers will use Patriot jeep-pickup trucks to conduct high-speed raids. They can move hundreds of kilometers quickly, the jeep platforms being more maneuverable and mobile. They will only be used in desert, steppe, and semi-arid conditions. Seven soldiers can travel in each pick-up truck. The latter will be equipped with 12.7-mm Kord machineguns, AGS-30-mm grenade launchers, and Kornet or Konkurs antitank missile complexes. The jeep can also transport Podnos 82-mm mortars and a basic load of rounds. 574

With regard to weaponry, in October 2016 it was reported that ten Pantsir air defense systems would be supplied to the Syrian Army. ⁵⁷⁵ A Ka-31SV radar reconnaissance craft was spotted at Latakia. ⁵⁷⁶ In November it was reported that the Tu-95 bomber had been outfitted with the new Kh-101 cruise missile for the first time and used in Syria. In the past only the Tu-160 had been outfitted with the missile there. ⁵⁷⁷

From December through January there were several new weapons reportedly present in Syria. Footage of the Ka-52 Katran, a naval modification of the Ka-52 Alligator, was shown firing missiles. ⁵⁷⁸ *Rossiya 1 TV* showed footage of tracked robots armed with antitank

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⁵⁷³ Natalya Koroleva and Yuriy Borodin, "Syrian Rampart' in the Volgograd Steppe," *Voyennyy Vestnik Yuga Rossii*, 23 September 2016.

⁵⁷⁴ Aleksey Ramm, "The Ministry of Defense is Forming Super-Light Brigades: Motorized Riflemen in UAZ Patriot Pickups will Avoid the Enemy's Strength, Slip through his Combat Formations, and Inflict Lightning Strikes," *Izvestiya Online*, 21 October 2016.

⁵⁷⁵ Nikolay Surkov, "Russian Air Defense Systems will Strengthen Syrian Army," *Izvestiya Online*, 11 October 2016.

⁵⁷⁶ No author provided, "New Russian Ka-31SV Radar Reconnaissance Helicopter Noted in Syria," *Lenta.ru*, 27 October 2016.

⁵⁷⁷ No author or title provided, *Izvestiya Online*, 18 November 2016.

⁵⁷⁸ Rossiya 24 TV, 5 December 2016.

guided missile systems being used in combat (Syria was not specified), and there were reports about the use of Special Operations Forces in Svria. 579 There was a report stating that in November the Navy for the first time used carrier-based aviation to strike ground targets. Kalibr missiles launched from the frigate Admiral Grigorovich, and Bastion coastal systems also struck terrorist positions. Experts noted that the Mediterranean group gives Russia an extra trump card "both on the battlefield and in negotiations." ⁵⁸⁰ Defense Minister Shoygu noted at the end of December that 162 modern weapons were tested in Syria to dat. They include the Su-30 SM and Su-34 aircraft, the Mi-28N and Ka-52 helicopters, and seaborne cruise missiles.⁵⁸¹ In January 2017 it was noted that Russia's Aerospace Forces had deployed 12 Su-25 ground-attack aircraft to Syria, which came just two weeks after Russia announced a drawdown of its forces there. 582 Finally, it was noted that the S-400 missile systems protecting the Humaymim Air Base would remain in place to protect it against airstrikes.⁵⁸³

There were also a few miscellaneous notes worthy of mention, the most important being the problems that Russia's Admiral Kuznetsov aircraft carrier experienced. In mid-November a pilot had crashed in the sea after it had run out of fuel "waiting for the ship's broken arrester wires to be fixed." The same report noted that on 20 November, most of the carrier's air group has been rebased to the Humaymim Air Base. 584 This may be due to the carrier's decks being unavailable for use. Perhaps for this reason it had been rerouted out of the area. On 26 November the Iranians noted that Tehran could "allow Russia to use Hamadan for Moscow's aerial operations against 'terrorists' in Syria." 585

⁵⁷⁹ Nikolay Grishchenko, "Video of Russian Special Operations Forces in Action in Syria Published," *Rossiyskaya Gazeta Online*, 12 December 2016.

⁵⁸⁰ Aleksandr Stepanov, "Russian Carrier Aviation and Bastion Systems Enter Fray in Syria. Terrorists Being Bombed with All Weapons," *MK Online*, 15 November 2016.

⁵⁸¹ *Interfax* (in English), 22 December 2016.

⁵⁸² *LiveJournal*, 10 January 2017.

⁵⁸³ *Interfax* (in English), 15 January 2017.

⁵⁸⁴ Rossiya 24 TV, 5 December.

⁵⁸⁵ *RIA Novosti*. 26 November 2016.

Another commentary expressed concern over the ability of the Syrian Armed Forces to continue to hold territory. There is worry, since the Syrians took and then lost Palmyra, the thinking being that this could also happen in Aleppo. There was also concern that organized uprisings in major cities might now turn into a guerilla war in rural localities. Another worry is that cease-fires are arranged and abandoned, and there is concern regarding the continuous reports of Russian war crimes (alleged attacks on hospitals, schools, humanitarian aid convoys, etc.). Meanwhile Russia continues to try to get out of the conflict and save face. One analyst, Nikolai Zlobin, noted that Russia faces three tasks in Syria: to destroy terrorists, to beat the US in a big game, and to preserve influence in Syria when the fighting ends. 587

Conclusions

As Russia's military confidence grows, its aggressive activities will need the constant attention of those in areas near or bordering on the country, particularly the Baltics, Ukraine, Moldova, and the Arctic region. Snap inspections could eventually turn into the initial period of war that some writers stress. In 2008 an exercise commenced next to South Ossetia that was structured on the basis of a possible war with Georgia; such a war began soon after. The Tsenter exercises in 2015 were followed by the operation in Syria. Thus, the Kavkaz exercise is troubling, especially as it was developed in conjunction with an exercise in Crimea, which borders on Ukraine in the south, implying the potential of a dual front.

From a military perspective, it appears that the Russian MOD has achieved many of the goals it set for itself before entering the conflict. It has validated or is in the process of validating weapon capabilities and employment methods. This is especially true for the Aerospace and Naval Forces, less so for the Ground Forces. The Air Force appears to have learned how to work with the Syrian Ground Forces and Russian Special Forces in the area. Strategic bomber flights from Russia to the

⁵⁸⁷ *Rossiya 1 TV*, 15 November 2016.

⁵⁸⁶ Vladimir Frolov, "Aleppo Taken, Palmyra Surrendered. What Next? What Russia Has Achieved in Syria and What it Should Do Next," *Republic*, 13 December 2016.

area have not stopped either. Along with this demonstration of professional capabilities comes an implicit aura of deterrence capabilities that must be considered by potential adversaries. It is now understood that any confrontation with Russia will be met with a host of new weapons. Technological advances are playing a key role in the reform of the Armed Forces.

Beyond the employment of weaponry, there are many lessons learned regarding the planning and implementation of strategic transport capabilities. There has been a continuous logistics flow of material from Russia to Syria. These flights are most likely controlled via the integrated command and control apparatus of the NDMC. Communication and EW capabilities appear strongly tested and developed as well.

Russian military analysts, writing in professional journals, are stressing the manner in which terrorist groups are deploying their forces. This discussion is ongoing and will be worth following. Interestingly, there are fewer lessons learned in journals about Russian troop experiences. Instead the focus is on the tactics and operations of terrorists. Gerasimov, however, has stressed several times that Syrian lessons learned discussions must continue in Russia's academies.

There are problems, of course, and most (from a Russian perspective) lie with the Syrian Armed Forces. Rebels still control much territory in Syria, even though Syria has been receiving Russian assistance for over a year now. Russia's Aerospace Force, in conjunction with Syrian artillery attacks, helped stabilize the situation for the first six months of their deployment. Recently, however, things have stalled. Much of the blame for this turn of events is placed on Syria. One writer noted that the Syrian military has not centralized its supply system; its soldiers are not motived to succeed in combat; its military leadership has no clear strategic vision; and there is no strategic reserve. Perhaps of equal importance is that special service corruption in Syria "is on a simply incredible scale. To one degree or another they extract tributes

not just from the entire civilian population but also from the army as well."588

Overall, however, Russia appears well on its way to achieving its geopolitical and national goals of attaining influence in the region and at home. If Russia's military successfully stays the course, it will exit the conflict far better prepared than it entered it, both militarily and diplomatically/politically. The Kremlin's inhabitants, who envision enemies everywhere and see conspiracies around every corner, will have become a most dangerous group, who will require the West's constant attention.

⁵⁸⁸ Mikhail Khodarenok, "'Russians Carry Out Strikes, but Al-Assad's Soldiers Are Not Going Into Battle'—Why Russia Has Not Managed to Achieve Decisive Victory in Syria in One Year," *Gazeta.ru*, 23 September 2016.

CHAPTER ELEVEN: CONCLUSIONS

Introduction

Autocratic systems and kleptocracies are expected to exert control from above. Russia is no exception to the rule. During 2016 the country underwent several significant changes, and many had to do with control measures in the civilian and military sectors. In the former, the best example is Putin's development of a personal Palace Guard in the form of a National Guard (on 16 January 2017 he even signed a decree establishing 27 March as the Day of the Russian Federation National Guard Troops). 589 He also strengthened the security service's control over the regions, perhaps fearing a backlash where money and supplies are in demand. Russia's media attempted to exert control over the thinking of other nations with their reliance on perspective (local interpretations of objective reality, outright half-truths or even lies) over truth (such as attempts to deflect responsibility over the downing of the Malaysian airliner or to cover up charges of doping by Russian athletes). Russian hackers exerted control over files of the Democratic National Committee leading up to the US elections, and evidence of Russian hacking has been found in the files of numerous other nations, to include Denmark, Germany, France, and Sweden. Putin signed a decree on a new Information Security Doctrine, which established further control over the Internet in Russia, and other strategies and concepts were signed into law as well.

With regard to the military sector, the Armed Forces continued to rely on a five-step template to discover changes in the external threat environment and offer prescriptions for confronting them, enabling control over future war scenarios. Chief of the General Staff Gerasimov added to this thought pattern, describing how new trends in the character of warfare result in new forms and methods of confronting them. The National Defense Management Center (NDMC) demonstrated that it has achieved total control over military and civilian institutions in time of war or conflict, as was demonstrated during Kavkaz-2016. New achievements in reflexive control (RC) indicate that Russia is ready even

⁵⁸⁹ *Interfax* (in English), 16 January 2017.

at the geopolitical level to make others think they are doing something for themselves when they are actually doing it for Russia. Finally, Russia's use of its Aerospace Force demonstrated a method of controlling conflict in Syria in support of Syrian ground operations, while testing a host of new weapons.

It is thus clear that 2016 witnessed several advances in Russia's methods of control over its environment and conflict. This is apparently a predictable trend for a nation obsessed with conspiracy theories and insecurities. What does it all mean?

Control Accomplishments

Civilian Issues

Domestically, Putin decided to shake up his political entourage while keeping a few key leaders (Foreign Minister Sergey Lavrov, Defense Minister Shoygu) in place. As mentioned in Chapter One, it is most intriguing to speculate "how" Putin might make changes to his retinue, with speculation being the key word here. A theoretical five-step template was proposed for understanding his considerations when making cadre changes. This template is different from the only authoritative voice on the topic, that of Gleb Pavlovsky, whose discussion of the concept known as *sistema* was covered extensively.

In late December 2016, in an interview on *Politkom.ru*, Pavlovsky offered his year-end assessment of the cadre changes and the problems within the country. He noted the following:

- This cadre change is not the first. This change is simply meant to try to develop a stable administrative apparatus. Low-level voter turnout shows this change is needed.
- The elite is now a collective concept, that is, groups with very different interests.
- Regions have different levels of development and different rates of economic decline. The center has been unable to balance them. Regions subsidized from

- the budget provide votes for money. Governors must fulfill edicts for which they have no money.
- The mass media are paralyzed with artificial agendas of threats and geopolitics, anything except the real conflicts within the country.
- The authorities put too much trust in ratings and election results. 590

The shake-up spread to the MVD, where the Internal Troops were moved to spots within the newly created Russian National Guard. The Guard eventually numbered 340,000 soldiers, and it seemed that many of the missions involved protecting Putin, deterring domestic violence and demonstrations, controlling domestic security issues, and fighting domestic terrorism. Interesting weapons developed for the Guard included sniper flamethrowers and acoustic non-lethal weapons for use in public order situations. The latter system reportedly will produce a "controlled behavioral reaction in rioters," with a range of not less than 60 meters and an operational capability of 4 hours. Pavlovsky, in his December interview, noted that the Guard is designed to "build a strong vertical structure of power, effective at least in one area, a structure ascending directly to the president—an internal political vertical structure of power."⁵⁹¹

Andrey Soldatov and Irina Borogan, two authors with high-level contacts in Russia, noted that Putin turned more often to the security services in 2016 than in the past, as his regime increased the fight against "spies" and conducted targeted attacks under the guise of an anticorruption campaign. This focus even included the arrest of Economic Development Minister Aleksey Ulyukayev and high-ranking police officials. The authors note that it appears that Putin has returned to

⁵⁹¹ Ibid.

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⁵⁹⁰ Aleksandr Ivakhnik, interview with Gleb Pavlovsky, "Next Year We Will Witness a "Velvet Uprising" of Cultural and Scientific Groups against the 'Dictatorship of the Village," *Politkom.ru*, 26 December 2016.

the Soviet experience, where control is maintained through spy mania and repressions to keep the elite in check. ⁵⁹²

Putin continues to visualize an existential threat to the regime, and seeks at every opportunity to search out foreign agents or identify extremist tendencies in groups, to include nongovernmental organizations, or individuals. His continual push appears to be to establish strategic stability while maintaining territorial integrity and national sovereignty. His motives appear to be based on a strong belief in Russian nationalism. He has ordered that Russian history books be rewritten. Further he appears to simply distrust the West and clearly did not get along well with President Obama.

Putin uses the media extensively to support his causes among the population. Russia's media continued to describe the nation's objective reality in terms only Russians or its former citizens abroad could comprehend. The focus of the media was to create a reality in which everything Russian was good, while everything Western was simply manipulative and out to take advantage of Russia. As a result, Russia placed some harsh restrictions on its media and Internet users, requesting them to think hard before posting or writing anything that might harm Russian interests. Repressive laws included blocking websites, moving servers to Russia, and obligatorily installing the security services' improved "system of operational intelligence measures" (SORM) on servers at a company's expense. The goal was to force social networking websites to block "content and divulge a user's personal data" when requested. When total control over information flows was not achieved, Russia turned to China, inviting Fang Binxing, its creator of the Great Firewall of China, to Russia for advice. 593

To thwart media accusations against Russia, various scenarios (perspectives) on events were offered and half-truths (even lies) began to replace truth. The Dutch released their 2016 findings/conclusions for

 ⁵⁹² Andrey Soldatov and Irina Borogan, "Special Services: 2016 Achievements,"
 Yezhednevnyy Zhurnal, 5 January 2017.
 ⁵⁹³ Ibid.

responsibility about the Malaysian airliner that was shot down over Ukraine in 2014. Russia has offered various spins over the past two years as to how the aircraft was actually destroyed (including one immediately before the Dutch report was released, to lessen the latter's impact) in order to control the narrative, but in each case the international community had solid contradictory evidence supporting Russian or Russian-backed surrogate responsibility. Such options on reality have become standard fare for Russia's media, who fail to handle the truth, except for a very small share of journalists who see through this charade. Of course, others could see through the half-truths but are not courageous enough to expose them.

Accusations of Russian cyber-attacks against several nations (Sweden, Germany, France, etc.) culminated in Russian cyber espionage in the US at a crucial time, targeting the Democratic National Party and state boards of election in the run-up to the US presidential elections. The attacks were designed to demonstrate Russian control over Internet resources. In response President Barack Obama expelled Russian diplomats and ordered the conduct of several covert operations against Russia. Russia, of course, denied the allegations.

Russia has also noted several organizations (the FSB, the Federal Protection Service, the MOD, the Department of Presidential Affairs, and the Rosatom state corporation) as "essential for ensuring the rights and legitimate interests of Russian Federation citizens, national defense, and state security." Interestingly, also added to this list are media outlets *Russia Today*, the *All-Russian State Television and Radio Broadcasting Company*, the *Ostankino Television Center*, the *ITAR-TASS* Agency, and the *Russian Television and Radio Broadcasting Network*, all of which were granted an exemption from the tighter and more transparent rules of contract system law. ⁵⁹⁵

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⁵⁹⁴ Yekaterina Grobman, "*Rossiya Segodnya*, *TASS*, and *VGTRK* Get Defense Concessions for State Procurements," *Kommersant Online*, 11 January 2017. ⁵⁹⁵ Ibid.

Several new policies were developed and accepted during 2016. The *National Security Strategy* was adopted on the last day of 2015, while December 2016 witnessed the adoption of an *Information Security Doctrine*, a *Science and Technology Development Strategy*, and a new *Foreign Policy* statement. Each is designed to exert greater control over Russian interests and the activities of its citizens and foreign guests/organizations residing in Russia.

Military Issues

Russia's military continued its intellectual tradition of turning to military science to report on trends in warfare's changing nature. These changes were reflected most of all in the speeches that Gerasimov gave at the Academy of Military Science. He requested that the Academy provide new forms and methods of fighting to meet the new international situation. Other organizations seem to have followed Gerasimov's recommendations as well. The Russian General Staff Academy and the Advanced Research Foundation (much like the US's DARPA) organized a competition, which resulted in 351 submissions. Some of the winning essay entries are listed here, and many reflect topics of concern to Gerasimov over the past three years:

- "Wars of the Future: Forms and Methods"
- "Suspension Point for Vertical Take-off UAVs (Quadcopters) for Delivering Munitions (hand grenades, under-barrel grenade launcher rounds) in Hard-to-Reach Sites (in Urban Conditions) for the Stand-off Destruction of the Enemy and Methods for their Use"
- "Resources for Future Armed Conflict: Humane Fuel-Air Mines"
- "Pocket Reconnaissance—Nano-UAV Development"
- "Prospects for the Realization of Autonomous Grouped Employment of Military-Use Robotic Complexes"

 "Establishing the Foreign Language Communication Competency of Peacekeeping Forces in an Armed Conflict Zone" 596

Other reports referenced elements of Russian military thought. One report noted a potential focus change from nuclear to nonnuclear weapons. This is the result of precision weaponry, according to Reserve Major General Vladimir Bogatyryov. The report stated that the fighting capabilities of the "strategic non-nuclear forces are to increase almost fivefold by the start of 2021" and that new weapon systems in the Aerospace Forces "will increase their firepower to destroy cruise missile by 50 percent."597 He ended noting that weapons based on new physical principles are under development, along with many more "which are too early to talk about, though I would like to."⁵⁹⁸ Thus, his report touches on the methods of warfare, as did a report by Defense Minister Shoygu, who noted that the deterrence factor will shift from the nuclear to the non-nuclear field by a factor of four. 599 Another report, from Foreign Ministry spokesperson Maria Zakharova, noted that the US deployment of forces in Europe brings in a "substantial imbalance in the configuration of forces on the continent,"600 which implies a change in the correlation of forces. A meeting of the Scientific Council of the Russian Federation's Security Council noted that "issues involving the comprehensive use of non-military assets for asserting Russia's national interests and for countering new forms of warfare in the international arena require additional study."601

A more detailed description of the use of RC measures was provided and older methods were reexamined. There are several RC methods, both mental and physical, for manipulating conflict. In the

⁵⁹⁶ No author provided, "Authors of Best Military Research Determined," *Advanced Research Foundation Website*, 3 November 2016.

⁵⁹⁷ *Interfax* (in English), 0706 GMT, 16 January 2017.

⁵⁹⁸ Ibid.

⁵⁹⁹ *Interfax* (in English), 0859 GMT, 12 January 2017.

⁶⁰⁰ Interfax (in English), 1603 GMT, 16 January 2017.

⁶⁰¹ No author provided, "Scientific Approaches to the Concept of War in the Modern World Discussed in the RF Security Council," *RIA Novosti*, 12 January 2017.

Ukraine conflict, analogies were offered as one example of a way to control the perceptions of audiences at home and abroad. Russian theorists see a weakness in the Western ability to consider all angles of a problem. They tend to offer their perception of events and thereby shape objective reality to their liking. They then move on to the next problem, as things tend to change at a dramatic speed in the age of the Internet, where there is precious little time to examine charges in depth. As a result, on occasion Russia's version of events tend to find friction where there actually is none.

Of continued concern are Russia's "snap inspections." On 16 December Gerasimov briefed military attaches on his inspection policy, noting that they do not violate obligations relating to the control of conventional armaments. The worry is that these snap inspections, which involve the movement of equipment over great distances and the rehearsal of military administrative agencies working with federal and regional executive bodies, could be used to condition border nations into thinking an inspection is an exercise when, in fact, it could be a mobilization for a real intervention scenario.

The establishment of the NDMC was another key development, most notably in the way it was used during Kavkaz-2016 to mobilize an entire region, from the governor all the way down to the lowest private. The NDMC appears designed to function like a *Stavka* in wartime.

Russia's military press positively assessed the development of new weapons as Russia continued its arms sales to China and India during the year, making key inroads in the arms markets of both nations. For both China and India, the arms they acquired have greatly increased their strike capabilities.

Russia's Syrian campaign offered the military the opportunity to move out of the training area and actually conduct operations, which offered a chance to test weaponry under actual combat conditions.

⁶⁰² No author provided, "Russian Will Continue to Conduct Snap Readiness Inspections," *RIA Novosti*, 16 December 2016.

Control measures were focused on simply using the Aerospace Forces and Special Forces to confront ISIS. Russia's military met with both success and setbacks, to include accusations from the US of the commitment of war crimes. The latter charges included accusations of atrocities and indiscriminate bombings. Aleppo was taken after months of fighting while Palmyra, which was liberated earlier, was recaptured by rebels. Relations with Turkey turned from bad to good and back to problematic. The bad began with the Turkish shoot down of a Russian fighter plane. Eventually Turkish President Erdogan and President Putin talked. Turkish ground troop support eventually backed Russia's aerospace efforts in Syria. However, in December relations turned suddenly a sour again with the assassination by an off-duty Turkish policeman of Russia's ambassador to Turkey.

Putin and Shoygu Summarize 2016: Where is Russia Heading?

In their year-end speeches, Putin, Shoygu, and Gerasimov exulted in the improvements (speed, integration of commands, etc.) in the decision-making system of Russia and in the collection of hundreds of pieces of new equipment produced by the military-industrial complex.

In a November 2016 summary Putin discussed the technical outfitting of the Army and Navy, adding that over 5,500 arms and pieces of equipment were sent to the troops. He underscored the point that the Armed Forces development should not conflict with economic and social tasks. Rather, the force must be guided by the principle of reasonable sufficiency, 603 a term used often during the Gorbachev era. Putin stated that combat effectiveness must be continually increased, shortcomings identified, and lessons learned in Syria tabulated.

He also focused on developments in the space sector, to include new launch-vehicle designs, lunar programs, and deep space research. The first phase of building a cosmodrome was to be completed by the

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⁶⁰³ No author provided, "What Kind of Missions Putin Assigned to the Russian Military and Defense Establishment Representatives," *TASS*, 18 November 2016.

end of 2016, an unmanned launch program ready by the end of 2021, and the infrastructure for a manned launch ready by 2023.⁶⁰⁴

Putin then noted the following in regard to what must be produced:

One of the main conditions for ensuring state security is the capability of industry and enterprises to immediately adjust or increase the output of required products if necessary and ensure deliveries of arms, equipment, parts, and other material in requisite amounts. ⁶⁰⁵

He ended his discussion with a few statements on the importance of neutralizing military threats to Russia and the design and creation of advanced weapon systems that will ensure the strategic balance of forces. 606

Shoygu's speech was more specific. In a year end speech to the MOD Collegium, he discussed a number of elements. First, he discussed threats to the nation, which he listed as NATO battalions, reconnaissance flights, and military exercises, and the US missile defense system in Europe, along with its program to upgrade nuclear bombs and storage facilities. Second, he highlighted the numerous improvements to all facets of Russia's Armed Forces, from the services to medical and housing issues. Third, he covered budgetary issues, Russian successes in Syria, and Russian military exercises. 607

Shoygu offered a host of successes to indicate that Russia's objectives in Syria had been achieved. He noted that 12,360 square kilometers of territory and 499 populated areas were liberated; 18,800 missions flown, which delivered 71,000 strikes on terrorist infrastructure; and 725 terrorist training camps, 405 munitions' plants,

⁶⁰⁵ Ibid.

⁶⁰⁴ Ibid.

⁶⁰⁶ Ibid.

⁶⁰⁷ Website of the *President of Russia* (in English), 22 December 2016.

and 35,000 terrorists liquidated. Since estimates were that there were between 40-50,000 terrorists when the operation began, there should only be some 15,000 left. Of course, this does not include replacements, which most likely numbered in the thousands, if his calculations are correct. Terrorist equipment has been seized, 26,000 explosive devices disarmed, tons of humanitarian relief delivered. However, no mention was made of the countless mistakes Russian forces have made over the past year and a half.

Shoygu's report also noted the percentages of increase in the combat capabilities of the Armed Forces in 2016. These included a 14 percent increase in the country's combat capability and a 5 percent increase in arms deliveries; modern weapons now occupied 58.3 percent of permanent-readiness units, and the reliability of arms and equipment rose from 89 to 94 percent. 609 This again indicates the Russian penchant for mathematical analysis.

Finally, Shoygu listed priority issues for the nation to resolve in 2017. They included, among other priorities:

- Continue to build up the combat capabilities of the Armed Forces and to take measures to reinforce the force groupings in the western, southwestern and Arctic strategic areas. Ensure timely placement and strict compliance with the state defense order in 2017, and achieve the level of 60 percent or more of the Armed Forces' equipment consisting of modern weapons and materiel in permanent-readiness units.
- With regard to strategic nuclear forces, put three missile regiments equipped with modern missile systems on combat duty, as well as enter five modernized strategic aviation complexes into service.
- With regard to the general purpose forces, deploy two brigade sets of Iskander-M missile systems in the

⁶⁰⁸ Ibid.

⁶⁰⁹ Ibid.

- Ground Forces and rearm three divisions of the army air defense with Tor-M2 air defense missile systems. Also, ensure the supply of 905 of the latest tanks and armored combat vehicles.
- Deploy 170 new and modernized aircraft in the Aerospace Forces and Navy; rearm 4 SAM regiments with the S-400 anti-aircraft missile system; deploy 8 surface ships and 9 combat boats in the effective Navy forces; supply 4 Bal and Bastion rocket complexes to the coastal troops; ensure the acceptance into service and placement on alert of 3 radars with high operational readiness in Yeniseisk, Orsk, and Barnaul; launch the second unified space system spacecraft; and continue to improve the Armed Forces basing system. 610

What Does it all Mean?

While it may be too early to make a dramatic prediction, there should be some Russian and US worries as to where the Kremlin is headed. In Russia, the worry should be that they may be headed in the same direction as the USSR in the days of Brezhnev and even Gorbachev, which is to some sort of collapse. In spite of all the efforts to exert control over their system as described above, which has succeeded to a large degree in the opinion of many observers, there is another factor to consider. While not referring directly to Russia, Steven Pinker, writing in the *Wall Street Journal* in December 2016, referenced a scientific law that has some applicability to Russia's current situation. Pinker noted the following:

The Second Law of Thermodynamics states that in an isolated system (one that is not taking in energy), entropy [disorganization, chaos, randomness, etc.] always increases over time. Closed systems inexorably become less structured, less organized, less able to accomplish

⁶¹⁰ Ibid.

interesting and useful outcomes, until they slide into an equilibrium of gray, tepid monotony and stay there.⁶¹¹

While Russia continues to take in energy, it is energy derived from a rather jaundiced view of the world, one which sees threats and conspiracies everywhere. The monotony of this input is that its view of reality is stilted through these two lenses, even when threats do not in actuality exist or when the Russians do not admit that their own actions caused a threatening response from others. The regions are becoming increasingly chaotic, as governors search for money and citizens search for stability. Threats, either real or imagined, enable expenditures on military weaponry and draw needed funding away from the regions.

The scenario that should worry the US is that Russia is so insecure that it will react inappropriately to conditions and events when viewed through its slanted perspective on just what makes up objective reality. Russia needs to stop creating its own reality and attempting to convince other nations of its perspective (such as the MH17 incident). Russia, as a result, fails to take into consideration the effect of its own actions (and half-truths) and their consequences. This can bring the world to the brink of a nuclear or nonnuclear disaster.

Discussions with Russians should proceed on the basis of US recognition of the former's desire for equal security, strategic stability, and territorial integrity and sovereignty. Discussions with the US should proceed on the basis of Russia's recognition that it is responsible for the violation of the territorial integrity and sovereignty of Ukraine and that working off its own view of objective reality will never work out. If such talks are not forthcoming-and they probably are not-then the US will have to be keenly aware of Russian attempts to control discussions, negotiations, and outcomes. The Kremlin will continue to expand its geopolitical quests. NATO nations and nations bordering on Russia will have to keep a sharp lookout for mental or physical traps that are set for them. It means that, in all likelihood, we are in for a time of troubles.

⁶¹¹ Steven Pinker, "Why Things Fall Apart," *The Wall Street Journal, Review Section*, 31 December 2016-1 January 2017, p. C1.

APPENDIX ONE: RUSSIA'S GENERAL STAFF/COMMANDERS ON THE WAR IN SYRIA

Russia's General Staff/Commanders on the War in Syria

When analyzing Russian military activity in Syria, two of the most important sources of information are the comments made by the Russian Chief of the General Staff V. V. Gerasimov and by Colonel-General Andrey Kartapolov, the Chief of the Main Operations Directorate, the latter of whom is often referred to as the "brain" of the General Staff. 612 It is they who plan and run operations.

Kartapolov guided the Main Operations Directorate during the initial intervention into Syria. In November he was reassigned as the commander of the Western Military District, and Lieutenant-General Sergey Rudskoy, his deputy in the Directorate, replaced him. This section will examine the comments of these three men on Russian military actions in Syria. Their conversations offer a perspective over time, as Kartapolov was in charge when the operation began, Rudskoy replaced him in November, and Gerasimov has been there the entire time. Their comments center on a few specific issues, to include the number of sorties flown and targets hit, the negotiating process between Russia and the US and results obtained, and Russia's military pullout.

Another important source of information is comments from the actual field commanders in Syria. Two are discussed below. The first is Lieutenant General Aleksandr Dvornikov, who was called the main executor of the plan that was first laid out by Colonel-General Vladimir Zarudnitskiy (who was in charge of training government troops in Syria). Dvornikov was eventually replaced in the summer of 2016 by Lieutenant General Aleksandr Zhuravlev.

Colonel-General Andrey Kartapolov

⁶¹² Viktor Baranets, "Colonel General Andrey Kartapolov: Russian Military Base May Appear in Syria. It Will Have Naval, Air, and Ground Components," *Komsomolskaya Pravda Online*, 16 October 2015.

Kartapolov, known as a competent commander who possesses broad tactical thinking, was assigned to the Main Operations Directorate in June 2014. This means that he was intensely involved in two important Russian military buildups, first in Eastern Ukraine and then in Syria. The latter is the first acknowledged deployment of Russian forces outside of Russia (Putin continues to deny that Russian forces are in Ukraine, even though everyone knows they are there), since the 1979 invasion of Afghanistan. From these deployments Kartapolov has gained practical experience. 613

In a 3 October 2015 briefing Kartapolov stated that since 30 September Russian aviation forces had made over 60 sorties into Syria. Attack targets were command and control posts, munitions and explosives dumps, communications hubs, mini-plants that were producing suicide bomber material, and training camps. He made a point of reminding the media that Russia had provided other nations with an advance warning of impending Russian airstrikes against ISIS targets. These warnings were issued through the Coordination Committee's International Information Center, which was established in Baghdad. As of 3 October only Iran, Iraq, and Syria had provided information to the center.

Kartapolov very optimistically stated that Russia had "succeeded in undermining the terrorists' material-technical base and substantially reduced their combat potential." Colonel-General Viktor Bondarev, Commander of Russia's Aerospace Forces, added to this optimism, stating that all bombs and missiles hit their targets "with no mistakes." Targets are chosen after compiling data from space and radio-electronic intelligence, and images from UAVs, and impending strikes are

⁶¹³ Defense Ministry press report, "Russian Defense Minister Presents new Commander of the Western Military District Troops," *Ministry of Defense of the Russian Federation*, 23 November 2015.

⁶¹⁴ Unattributed report, "Colonel General Andrey Kartapolov, Chief of the Russian Federation's Armed Forces' General Staff Main Operations Directorate, Speaks about Results of Activity of Russian Air Grouping in Syria," *Ministry of Defense of the Russian Federation*, 3 October 2015.

⁶¹⁵ *Interfax* (in English), 7 October 2015.

computer-modeled. Aviation and maritime launch sources use the same algorithms. Kartapolov noted that deviation from the targets bombed did not exceed 5 meters. Several of those targets were destroyed due to the launch of Kalibr (3M14T variant, with a 900-1500-mile range) cruise missiles from the Southwest Caspian Sea, with the involvement of four guided-missile ships. Finally, he noted that attempts to contact Russia's partners in the fight against ISIS (here he implies the US) and coordinate ISIS locations have gone unanswered. He offered two reasons: Russia's partners do not have such coordinates and/or they do not want Russia to attack ISIS targets. However, since the deployment of Russian forces has continued deep into the summer of 2016, these initial successes outlined by Kartapolov appear to have not been sustained at such a high rate.

On 16 October retired Colonel Viktor Baranets, an MOD press secretary and ten-year veteran of MOD's Central Apparatus and General Staff, interviewed Kartapolov. The latter would not say when the decision was made to start sending military equipment to Syria, but his Directorate initially assessed the situation and prepared the leadership with proposals for achieving objectives. The main task was to use all capabilities to transfer equipment, arms, and material supplies to Syria as quickly as possible. A first step then involved setting up the coordinating committee in Baghdad. A set of reconnaissance assets gathered information on ISIS, whose presence was estimated at 40,000-50,000 fighters. Before attacking any ISIS targets, Kartapolov noted, a triple check on the accuracy of a target's location was made, using space, drones, radio, and other types of reconnaissance systems. 618

Russia's presence in country appeared to have inspired the Syrian Army, as more than ten populated localities were liberated in the first few days of direct support from Russian assets. When asked if Russian

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⁶¹⁶ Interfax (in English), 7 October 2015.

⁶¹⁷ Unattributed report, "Andrey Kartapolov, Chief of the Russian Federation's General Staff Main Operations Directorate, Has Spoken about the Results of the Employment of Cruise Missiles against Rebels in Syria," *Ministry of Defense of the Russian Federation*, 8 October 2015.

⁶¹⁸ Baranets.

forces could be used in Iraq, Kartapolov noted that if a request comes from the Iraqi leadership to President Putin, as it did from Syria's president, then it will be considered. Kartapolov reiterated that no Russian ground troops would be employed in Syria. Coordination with a small Syrian task force regarding air operations and the location of the forward line of troops would continue. 619

Kartapolov appeared suspicious and even hostile when examining US intentions and capabilities. He noted that the US's failure to admit it is unable to achieve its objectives in Syria without Russia is due to the fact that it would be humiliating; that the US could not understand what Russia was doing in Syria; that the US "possibly" had supplied Stingers to forces opposed to President Al-Assad opposition forces; and that US bombings to date had been aimed at making it more difficult for Syrian troops to conduct operations. He stated that "everything the US-led coalition is doing is a sham...It is an imitation of strikes..."620 With regard to a US statement that Russia will suffer heavy losses in Syria, he noted that such a statement indicated an "utter lack of professionalism." He then went on to add that the US's sarcastic response to the Russian launch of Kalibr cruise missiles was due to the fact that US intelligence sources missed this. He called US capabilities weak, noting in regard to equipment "which they tout as boundless, are a children's tale."621 He criticized the Western media, stating that daily false reports are published about the indiscriminate nature of Russian air strikes. This "newspaper canard" is carried out with photo collages and video stills without any proof as to the time or site of the event. 622

In a 16 October report, Kartapolov stated that Russia and Turkey had agreed to establish a hotline between them to prevent incidents in the

⁶¹⁹ Ibid.

⁶²⁰ Ibid.

⁶²¹ Ibid

⁶²² Unattributed report, "Russian Federation Armed Forces General Staff Main Operations Directorate Chief Andrey Kartapolov Sums Up Results of Russian Aviation Group's Operations in Syria over Past Month," *Ministry of Defense of the Russian Federation*, 30 October 2015.

air. 623 This was required due to the increased number of sorties flown by the Russian Air Force. He noted on 30 October that, after a month, 1391 sorties had destroyed 1623 terrorist sites. His totals included the following: 249 command and communication centers; 51 training camps; 35 plants and workshops where explosive devices where assembled; 131 ammunition and fuel depots; 371 strongholds; and 786 field camps and bases. 624 He added that ISIS propaganda included the public execution of prisoners and hostages, which took place after rounding up the local population and forcing them to watch the executions for intimidation purposes. 625

On 3 November, during a briefing at the MOD, Kartapolov softened his criticism, stating that significant cooperation had occurred among Russia, the US, and patriotic forces in Syria. Not only was a memorandum signed between the US and Russia's MOD the previous week, but air crews flew to within three nautical miles of one another and made contact on a predetermined frequency, exchanging messages in Russian and English. A hot line was established between Russian forces at their airbase in Syria and the US Air Force in Qatar. Further, contact has been established with Syrian opposition leaders. This enabled Russian aviation on 3 November to drop KAB-500 precision aerial bombs due to opposition information. Such cooperation will enable the sides to unite the efforts of both "government troops and other patriotic forces of the Syrian Arab Republic, which were previously in opposition, and act as a united front against the common enemy—international terrorism."

Kartapolov's final press appearance as Head of the Main Operations Directorate appears to have been a 19 November briefing on two massed air strikes against ISIS targets. He noted that on 18

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⁶²³ Interfax (in English), 16 October 2016.

⁶²⁴ Interfax (in English), 30 October 2015.

^{625 &}quot;Russian Federation Armed Forces...," 30 October 2015.

⁶²⁶ Kartapolov briefing, "Colonel-General Andrey Kartapolov Has Spoken about the Results of the Activity of the Russian Aviation Group in Syria," *Ministry of Defense of the Russian Federation*, 3 November 2015.

⁶²⁷ Interfax (in English), 3 November 2015.

November Russian Tu-160 and Tu-22MZ aircraft, in a 24-hour period, conducted 126 combat sorties from the territory of the RF while operational-tactical aircraft worked from the Humaymim Air Base in Syria. These strikes were assisted by drone and aircraft reconnaissance data, as well as data from space. On 19 November he stated that Tu-95MS strategic missile carriers launched 12 cruise missiles from Russian territory against ISIS targets, while Tu-22MZ long-range bombers carried out strikes against 6 targets in Syria. Days earlier (reports state that Putin signed the decree on 10 November) Kartapolov had been reassigned to be the commanding officer of Russia's Western Military District. He was replaced as Head of the Main Operations Directorate of the General Staff by his deputy, Lieutenant General Sergey Rudskoy. Safety

Lieutenant General Sergey Rudskoy

Little is known about Rudskoy's background other than that he was Kartapolov's deputy in the Main Operations Directorate before taking charge. However, from the beginning of his time in this position, he focused on specific things the Armed Forces were doing or needed to do. On 24 November he stated that to ensure security at the Russian air base in Syria, strike aircraft would need jet fighter cover; air defense had to be strengthened (he advocated the use of the Fort system on the Moskva cruiser, which is similar to the S-300); and contact with Turkey should be discontinued. A day later, he stated that a Russian Su-24M front-line bomber was shot down by a Turkish F-16 fighter with a "close-radius missile with an infrared homing head," saying that the incident occurred over Syrian territory, four kilometers from the

⁶²⁸ Unattributed report, "Colonel General Andrey Kartapolov, Head of the Russian Federation's Armed Forces General Staff Main Operational Directorate, Summarizes results of Second and Third Massed Air Strikes against ISIL Targets in Syria," *Ministry of Defense of the Russian Federation*, 19 November 2015.

⁶²⁹ Interfax-AVN Online, 23 November 2015.

⁶³⁰ Unattributed report, "Defense Ministry Source: Deputy Chief of the General Staff Kartapolov to Head Western Military District," *TASS*, 16 November 2016.

⁶³¹ Rossiya 24 TV, 24 November 2015.

⁶³² Statement by Lieutenant General Rudskoy, *Ministry of Defense of the Russian Federation*, 25 November 2015.

border.⁶³³ Turkey stated the opposite, that the attack took place after the bomber violated Turkish territorial sovereignty, for which Russia had been warned earlier due to prior incursions. Diplomats then took over the negotiation process regarding the downing of the aircraft.

Next, Rudskoy advocated shutting down ISIS funding. This would require Aerospace Forces delivering airstrikes on "oil extraction, storage, refinery, and transportation facilities in ISIS-controlled areas." ⁶³⁴ Certain nations, he added, to include Turkey at the forefront, were aiding this ISIS-led business project, and Russia had irrefutable evidence, through both aerial and space reconnaissance assets, that implicated Turkey's use of three main routes to get oil. ⁶³⁵

On a more positive note Rudskoy stated that unspecified Syrian opposition forces were helping the Russian military and the Syrian government's forces to attack ISIS positions. He estimated that more than 150 opposition groups are operating on Syrian territory⁶³⁶ (naturally, not all are cooperating with Russia). He added that since 30 September aircraft had conducted 4,201 combat missions, to include 145 by strategic missile and long-range bomber aviation. 637 Targets included 1200 tankers hauling crude and petroleum products, and 6 oil facilities, which were destroyed in the past 3 days. 638 In a 2015 year-end report, he noted that 5,240 sorties were flown, meaning that since 15 December (when 4,201 sorties were noted) 1,000 more were flown in just 2 weeks. The creation of a "multi-level reconnaissance system ensuring the reliable exposure of the gunmen's targets" has greatly facilitated Russia's air effort and enabled government troops and even detachments of the patriotically–minded opposition to conduct offensive operations against bandit groups. The goal is to prevent ISIS's further smuggling of

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⁶³⁴ Speech by Lieutenant General Rudskoy, *Ministry of Defense of the Russian Federation* (in English), 2 December 2015.

⁶³⁵ Ibid

⁶³⁶ Interfax, 15 December 2015.

⁶³⁷ Ibid.

⁶³⁸ Unattributed report, "The Russian Federation Has Destroyed in Syria More Than 1,000 Oil Tankers since 30 September," *RIA Novosti*, 15 December 2015.

Syria's assets out of the country. ⁶³⁹ He also made it a point to once again remind readers that "Russian aviation is operating on Syrian territory legitimately at the invitation of this country's leadership with the observation of all the norms of international law." ⁶⁴⁰

In an early 2016 statement, Rudskoy announced that more than 1,000 targets were hit in the first 10 days of the year. One military expert saw a real problem with the pronouncement that Russia was providing air support to the Syrian opposition and Al-Assad's forces simultaneously. This expert believes what is really happening is Russian support for the Kurdish opposition, who have been fighting for autonomy from Turkey, and not support for opposition forces in general. Two days after this report Rudskoy announced that a decision had been made to begin "a new direction in the activity of the Russian Armed Forces in Syria." This was the introduction of a humanitarian operation, supplying foodstuffs, medication, and other essentials. Some of the aid is being delivered by Il-76 transport aircraft of the Syrian Air Force using Russian parachute platforms.

In February Rudskoy stated that a Russian and US Syrian ceasefire coordination center with hotlines had been established between Russian forces in Syria and the US force in Amman. An exchange of maps was made, depicting regions where work is under way on reconciling the sides in the conflict. Russia provided a list of armed formations with some 6,111 people who joined the ceasefire and a list of 74 exact geographical coordinates where strikes must be excluded. According to the report, fighting has ceased at 34 locations. 643

⁶³⁹ Unattributed report, "Chief of the Russian Federation Armed Forces General Staff Main Operational Directorate Sums Up Results of Activity of Military Space Forces in Syria in 2015," *Ministry of Defense of the Russian Federation*, 25 December 2015.
⁶⁴⁰ Ibid.

⁶⁴¹ Maksim Solopov, "Whom is Russia Helping?" *RosBiznesKonsalting (RBK)* Online, 13 January 2016.

⁶⁴² Rossiya 24 TV, 15 January 2016.

⁶⁴³ Rossiya 24 TV, 27 February 2016.

In March Rudskoy stated that an echelon of Su-24, Su-25, and Su-34 aircraft had returned to Russia, as part of the pull-out from Syria. Other equipment would be redeployed via aircraft or sea transport.⁶⁴⁴ Almost simultaneously he noted that the US did not support all of the Russian initiatives offered in the 25 February framework of the Joint Russian-US Statement, in some cases formulating its own views. A compromise draft was sent to the US on 5 March, but an 18 March meeting in Amman showed to Russia that the US is not ready for a substantive discussion of the agreement's text. He noted that any delay is unacceptable, since the situation is dangerous. As a result of such inaction, he noted that "in the absence of a US reaction to these proposals, the RF will begin the unilateral application of the rules envisaged by the Agreement as of 22 March."645 Author Yuriy Gavrilov added that this apparently means that Russia is ready to strike persistent violators of the ceasefire in Syria without further coordination. Further, Gavrilov states that the US is providing only a minimum amount of information on the oppositions' formations, and such a one-sided approach is not making Russian negotiators happy. 646

Rudskoy noted that conditions for a blockade and control over dominating grounds and main roads have cut off ISIS from its logistical communications. This will ultimately result in the defeat of the terrorists around Palmyra. In addition, 43 deals were signed with moderate opposition leaders, who "pledged that units under their command would stop fighting," according to Rudskoy. In support of this effort, between 7-27 March some 500 combat sorties were flown delivering more than 2,000 strikes in support of Syrian Army ground operations. With regard to the accuracy of the air strikes, Naval Admiral Vladimir Komoyedov, who chairs the State Duma Defense Committee, stated that Russia uses unguided bombs on bombers fitted with guidance and drop

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⁶⁴⁴ Rossiya 24 TV, 18 March 2016.

⁶⁴⁵ Yuriy Gavrilov, "General Staff Authorized to State," *Rossiyskaya Gazeta Online*, 22 March 2016.

⁶⁴⁶ Ibid.

⁶⁴⁷ Interfax (in English), 18 March 2016.

⁶⁴⁸ Interfax (in English), 21 March 2016.

⁶⁴⁹ Interfax (in English), 31 March 2016.

systems. Western analysts are not clear on just how much, if at all, this improves accuracy.

In April Rudskoy announced that there were no immediate plans to free Aleppo. 650 However, a 28 July *Interfax* report noted that leaflets were used to distribute exit plans from the city, so that personal documentation and other humanitarian issues could be handled expeditiously. The leaflet warned city occupants that when approaching checkpoints they should wait for a signal from government troops and slowly turn their back and demonstrate to authorities that there are no explosive devices on their bodies. 651 In addition, Rudskoy announced that Russia's NDMC has opened a 24-hour hotline, to which Russian and foreign citizens can call with offers of humanitarian aid for Aleppo residents. 652

To assist with long-range bombing activities, the airfield at Mozdok in Russia is being renovated so that larger aircraft in greater numbers can use the field as an exit and entrance point to and from Syria. Russia is also assisting the Syrian Air Force, having provided two of ten modernized Su-24M2 frontal aviation bombers to them. It is a modernized version of the Su-24M frontal aviation bomber. For the international community, this could cause minor headaches, as analysts try to figure out if the aircraft is Russian or Syrian that is doing the bombing. Currently some 30 sorties a day are being flown by the Syrian force. Syrian support is important, as Rudskoy pointed out on 11 August that the main aim of the Aerospace Forces was to prevent

⁶⁵⁰ Interfax (in English), 21 July 2016.

⁶⁵¹ Interfax (in English), 28 July 2016.

⁶⁵² *Interfax* (in English), 1 August 2016.

⁶⁵³ No author provided, "The Army and the Defense Industrial Complex: The Airfield at Mozdok will Begin to Accept All Types of Combat and Transport Aircraft Beginning in 2017," *TASS*, 22 July 2016.

⁶⁵⁴ Anton Mardasov, "Armies and Wars: The War in Syria: Su-24s Fly Right Past Kerry; Russia's Transfer of Bombers to the Syrian Air Force Could Have a Hidden Meaning," *Svobodnaya Pressa*, 27 July 2016.

terrorist reserves from redeploying to the southwestern edge of Aleppo. 655

In August Rudskoy faced his toughest moment to date in regard to casualties, having to deal with the downing of a Mi-8AMTSH helicopter by ISIS that killed five soldiers. This was the fourth helicopter lost, according to official reports. The helicopters are used for humanitarian freight and for search and rescue operations or transport of special operation troops. 656

Chief of the General Staff V. V. Gerasimov

Nearly a month and a half after combat operations began in Syria, Gerasimov delivered one of his first public reports to Putin on the progress of fighting there. He stated that in 48 days, 2,289 combat sorties had been flown and 4,111 missile and bombing strikes had been conducted. This assault destroyed 562 command posts, 64 terrorist training camps, and 54 weapon and ammunition production plants, among other sites. This support has allowed the Syrian Armed Forces to go on the offensive along the entire front line of several provinces. In order to step up strikes against ISIS, a new plan has been constructed that includes 25 long-range aviation aircraft, 8 Su-34 advanced bombers, and 4 Su-27SM fighters, apparently operating from the territory of the RF. Additional reconnaissance was to be conducted by 10 image and radar reconnaissance satellites, some of which are civilian owned. Control over the missions was still maintained from the NDMC in Moscow via long-range aviation command posts and the air group in Syria. 657

The same day the President of Russia's website detailed a report from Defense Minister Shoygu, who said that long-range aviation assets involved in Syria included Tu-160, Tu-95MS, and Tu-22M3 strategic bombers. These attacks from Russian territory involve flights 5 to 9 hours in length. Some Tu-22M3 flights are departing from Mozdok in

⁶⁵⁵ Interfax (in English), 11 August 2016.

⁶⁵⁶ Ivan Safronov, "Mi-8 Flies into Fiery Opposition; Five Russian Officers Die in Syria," *Kommersant Online*, 1 August 2016.

⁶⁵⁷ Rossiya 24 TV, 17 November 2015.

North Ossetiya. 658 When asked how much all of the sorties were costing, Mozdok's commander, Major General Anatoliy Konovalov, replied "You can't put a price on the country's security." 659

The following day it was reported that Gerasimov had been awarded the Order of St. George, the nation's highest military honor, apparently for running the operation in Syria. 660 If true, this would seem to be somewhat strange, as most military awards are given after an operation/conflict ends or is near ending, neither of which fit Russian actions in Syria. In November the situation was still ambiguous, and it has now stretched out to the winter of 2017-2018 (as this work goes to press), with no end date in sight.

On 19 November 2015 Gerasimov discussed French participation in the Syrian operation with French representatives. Earlier an ISIS attack had destroyed a Russian A321 airliner in flight and heading out of Egypt, while the French had just experienced the terrorist attack on innocent civilians at a rock concert and a restaurant in Paris. The sides discussed issues of collaboration between the Russian naval grouping and the French aircraft carrier group. ⁶⁶¹ In late December Gerasimov and General Pierre de Villiers, Chief of the French Defense Staff, agreed to establish a working group to better coordinate the fight against terrorism. They agreed that Syria should remain "a united, secular, and multi-faith state." ⁶⁶² A few days earlier Gerasimov had discussed the fighting with US General Joseph Dunford, Chairman of the Joint Chiefs of Staff. They discussed joint cooperation between Russian and US air operations. ⁶⁶³

In December it was reported that Russia's air group had expanded its airbases in Syria. In addition to the main Humaymim Air

⁶⁵⁸ President of Russia website (in English), 17 November 2015.

⁶⁵⁹ Andrey Kolesnikov, "The War Was Yesterday: *Kommersant* Special Correspondent Watched it Together with the Supreme Commander in Chief," *Kommersant Online*, 18 November 2015.

⁶⁶⁰ Russian News Website RBK, 18 November 2015.

⁶⁶¹ Ministry of Defense of the Russian Federation website, 19 November 2015.

⁶⁶² Interfax (in English), 24 December 2015.

⁶⁶³ RIA Novosti, 15 December 2015.

Base in Latakia, there were reports that it was also using the Al-Shayrat Base in Hims and the Tiyas Base in Palmyra as "forward-staging" airfields for supporting the government offensive. The latter two seem particularly important as refueling and ammunition resupply points for Mi-24P attack helicopters and Mi-8 helicopter transports. At the time there was also a report on the number of aircraft supporting operations in Syria. It was reported that at Humaymim there were 12 Su-25SM attack aircraft, 11 Su-24M and 4 Su-34 frontline bombers, 4 Su-30SM fighters, 12 Mi-24 attack helicopters, and 4 multipurpose Mi-8 helicopters. Based on Russian territory are 4 Su-27SM fighters, 5 Tu-160 strategic missile carriers, 6 Tu-95MS, 8 Su-34, and 14 Tu-22M3 aircraft. All bomber and attack aircraft were covered by Su-30SM fighters. 664

Gerasimov noted that the threat of terrorist activity spreading into Russia was growing, which was one of the main reasons that an Aerospace Force operation against ISIS was initiated. Russia is carrying out 30-40 strikes per day in support of the Free Syrian Army, whose total strength exceeds 5,000 troops according to Gerasimov. There appeared to be progress in the fight to seize the strategic initiative. Gerasimov stated in January 2016 that of the 15 directions where combat operations were under way in Syria, 10 were offensive, 3 involved preparations for offensive operations, and 2 were defensive.

On 28 March, Gerasimov announced that all operational-tactical aircraft of the Aerospace Forces that had planned to leave Syria had returned to Russia. 668 It is not known how many additional aircraft were not in the plan and are staying on. That same day he noted that Aerospace Forces, Special Operations Forces, and Russian military advisors had helped liberate the important Syrian cultural center of

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⁶⁶⁴ Ivan Safronov and Pavel Tarasenko, "Bases with Room for Growth; Russian Airmen Bring New Infrastructure into Play in Syrian Operation," *Kommersant Online*, 7 December 2015.

⁶⁶⁵ Interfax (in English), 14 December 2015.

⁶⁶⁶ Interfax (in English), 14 December 2015.

⁶⁶⁷ Rossiya 24 TV, 22 January 2016.

⁶⁶⁸ Interfax (in English), 28 March 2016.

Palmyra. 669 It is the first time that Gerasimov mentioned Special Operations Forces in Syria beyond the function of providing reconnaissance and targeting support. Many outside observers were asking about the extent of the drawdown, which forces had remained, and, in fact, was a transformation of the force to a new stage of operations actually underway instead of a drawdown. No answers were forthcoming from the Russian MOD. Meanwhile, Gerasimov continued to note that Russia was meeting in full its obligations in ensuring the ceasefire and national reconciliation in Syria. 670

In June the newspaper *Nezavisimaya Gazeta* stated that Russia was preparing to begin a "decisive struggle against all groupings that are violating the armistice in the Syrian Arab Republic," according to a statement from Gerasimov. Some believe that the Russian offensive will be aimed at retaking oil and gas fields in the east and southeast of Syria. Since the Russian Aerospace Forces are refraining from bombing the actual sites, their focus is on motor vehicle convoys moving in the direction of Turkey, while military advisers are helping the Syrian forces organize an active offensive armed struggle against terrorists and Al-Assad's enemies. ⁶⁷¹ In short, there are still many Russian forces in Syria, and operations there are continuing in spite of what many felt was a Russian pull-out from Syria.

Russian Commanders in Syria: The Work of Dvornikov and now Zhuravlev

In February 2016 a Russian media report noted that Colonel-general Vladimir Zarudnitskiy, Head of Russia's Central Military District, was in charge of training government troops in Syria, and that Lieutenant General Aleksandr Dvornikov, his Chief of Staff, was the "main executor of Zarudnitskiy's plans in Syria." In an interview Dvornikov stated that Russian advisors had helped plan Syrian Armed

⁶⁶⁹ Interfax (in English), 28 March 2016.

⁶⁷⁰ *Interfax*, 20 June 2016.

⁶⁷¹ Vladimir Mukhin, "General Staff Announces Hunt for Shape-Shifter Terrorists in Syria. Moscow Helps Damascus to Take Control of Main Oil and Gas Fields," *Nezavisimaya Gazeta*, 21 June 2016.

⁶⁷² Urals News Website (Ura.ru), 23 February 2016.

Forces combat operations, and that modern weapons, to include artillery systems, communication systems, and so on, had been provided to them.⁶⁷³

In March 2016 Dvornikov returned to Moscow and gave a lengthier interview to the Russian press. He noted that Syrian troops, tired after 4 years of fighting, had been facing 60,000 terrorists, who controlled about 70 percent of Syria when the Russian operation began in September 2015. A military advisor system was established to train government troops and other patriotic elements. This helped enable a switch to offensive operations, supported by Russia's Air Force, and offered the opportunity to recapture three major oil and gas fields. 674

Russia's snap readiness inspections helped prepare its force for deployments to Syria. State-of-the-art modular structures helped Russia quickly establish an adequate infrastructure for its forces. Dvornikov added that Russian Special Operations Forces were operating on Syrian territory, conducting reconnaissance, guiding aircraft to targets, and performing other special missions. He noted that military advisors were working at all levels, including the tactical level, but he did not state that Russian Ground Forces had participated in operations. He ended his interview by stating that "the requisite number of forces intended to ensure monitoring of compliance with the cessation of hostilities regime will remain in Syria." For his service in Syria, Dvornikov received a medal and the title of Hero of Russia from Putin for his service as commander of the RF's troop grouping in Syria from October until the March pullout of some Russian forces. He has since been appointed Commander of the Russian Southern Military District. 676

On 22 July it was reported that Southern Military District First Deputy Commander Lieutenant General Aleksandr Zhuravlev had taken

673 Interfax (in English), 23 March 2016.

⁶⁷⁴ Yuriy Gavrilov, "Syria: Russian Thunder. The Commander of the Russian Federation's Troop Grouping in Syria Has Given His First Interview to *Rossiyskaya Gazeta*," *Rossiyskaya Gazeta*, 24 March 2016.

⁶⁷⁵ Ibid.

⁶⁷⁶ Interfax, 20 September 2016.

command of the grouping of RF troops in Syria. This duty change took place at a time when ISIS was conducting continuous offensive operations in the area of Palmyra. Since September 2015 he had served as the Chief of Staff in Syria and temporarily carried out Dvornikov's duties when the latter returned to Moscow in March.⁶⁷⁷ Very little has been heard about Zhuravlev since.

⁶⁷⁷ Ivan Safronov, "Regrouping of Generals: Aleksandr Zhuravlev Becomes Commander of Russian Contingent in Syria," *Kommersant Online*, 22 July 2016.

APPENDIX TWO: KRUGLOV ON FORECASTING

In the last issue of *Military Thought* in 2016, author V. V. Kruglov discussed the status and opportunities presented by military forecasting.⁶⁷⁸ As an element of Russian military thought, forecasting is a topic to be followed closely, for it influences the further development of military strategy.

There is a need in Russia to correctly forecast the nature of threats and changing character of war for the next 30-50 years, according to President Vladimir Putin. He stated that this requires a new "smart" system of military analysis, although he did not expand on what this might mean. ⁶⁷⁹

The tasks of forecasting include predicting the development of the military, political, and strategic situation; and the appearance of advanced types of weapons, the nature of warfare, and military actions. Author V. V. Kruglov noted that one should not expect too much of a forecast, as it is among the most difficult in any science. Forecasting is dependent on not only predicting or foreseeing dangers and threats at the present time but also other issues. He notes that the content of the armed struggle matrix (weapons, forms and methods of both combat actions and employing formations, theater of operations characteristics, and so on) makes forecasting so difficult. This indicates that there is not just one answer to war's potential nature, but several possibilities. ⁶⁸⁰ The focus will be where threats to Russia or its national interests occur.

The conclusions one reaches are about the RF Armed Forces composition and makeup, organization, command and control, support system and so one should be in a specific region or on strategic sectors, and what role strategic reserves and mobilization reserves should have.

⁶⁷⁸ V. V. Kruglov, "Military Forecasting: conditions, possibilities, and the Realization of Results," *Military Thought*, No. 12 2016, pp. 33-38.

⁶⁷⁹ Ibid., p. 33.

⁶⁸⁰ Ibid., pp. 33-34.

The forecasts should also note that contemporary wars are clearly different from those of even the recent past. There is a strong technical and intellectual aspect of modern war that must be noted. ⁶⁸¹

By identifying trends in the changing character of war, forecasts can be more relevant and precise in their ability to piece together a picture of future war. Kruglov recommended eight trends that appear to have manifested in the past few years:

- The expanding spatial continuum of military activity;
- The creation and increased use of the information continuum (to include the use of reflexive control);
- The changing logical-temporal construction of armed struggle;
- The strengthening of deductive and weakening of inductive ties in relation to armed struggles;
- The organization and conduct of armed struggles in real time;
- The increase in the gap between the scope of destruction and destruction capabilities;
- The switch to the practical use of robot-driven weapons systems;
- The active use of nonmilitary forms and methods of struggle.⁶⁸²

The identification of trends allows planners to forecast preparations for them.

There are a few problems with using trends in forecasts. First, trends usually don't link together, and particular circumstances can determine the dominance of one trend over another. Second, trends are not rigid categories. To overcome such shortcomings, planners and

⁶⁸¹ Ibid., p. 35.

⁶⁸² Ibid., p. 36.

commanders use their subjectivity to affect combat actions and forecasting. ⁶⁸³

To make sure that combat activities go according to plan, it is necessary to do one of two things: either forestall an adversary or strike first in order to gain the initiative. Kruglov notes that David used the latter tactic in his fight with Goliath. One should deal a preemptive strike via a long-range high-precision weapon to attain the strategic initiative. When aggression starts, it is imperative to have two or three action options in each theater of operations, adjusted according to the path that the political, military, and strategic situations dictate. Under such circumstances, the roles of reconnaissance and intelligence activities become paramount. ⁶⁸⁴

Kruglov offered three conclusions: forecasts of potential theaters of operations need to be updated every three-six months or more often; it is necessary to forecast forms for the employment force grouping; and it is necessary to conduct training sessions of various types and forms involving, as a priority, centers of defense control and national, regional, and territorial ones. ⁶⁸⁵

⁶⁸³ Ibid., p. 37.

⁶⁸⁴ Ibid., pp. 37-38.

⁶⁸⁵ Ibid., p. 38.

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