

RUSSIA'S MILITARY: ON THE RISE?

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EXECUTIVE SUMMARY

fter the 2008 war with Georgia, Russia started its most radical and comprehensive military reform in several decades. It is aimed at transforming the outdated mass mobilization army into combat-ready armed forces that are able to pursue a broader set of functions - from nuclear and non-nuclear deterrence to conventional warfare in local and regional conflicts to non-linear warfare to combating terrorism. The results are mixed. On the one hand, Russia was successful in streamlining command and control structures, improving training, increasing the number of professional soldiers, and strengthening elite forces. Moscow consequently enhanced its capability for joint operations, inter-agency coordination, and strategic mobility. Furthermore, Russia made progress in modernizing weapons and equipment. On the other hand, structural problems still set limits to Russia's military development. They consist of the inability of the defense industry to deliver the requested amount and quality of modern weapons in due time and to agreed cost, demographic problems, and - most notably insufficient financial means against the background of declining oil prices and the effects of Western sanctions.

Despite these impediments, Russia's operations in Ukraine and Syria clearly demonstrate that its armed forces are able to fulfill an increased set of functions even with limited means. Particularly in regard to its post-Soviet neighbours, Russia can rely on its vast arsenal that, although stemming from Soviet times, can still be used in combat operations. The intervention in Syria shows that Moscow is able to quickly deploy troops and hardware beyond the post-Soviet space and pursue limited expediationary warfare based on air power. While Russia still lags behind NATO in quantitative and qualitative terms, it enhanced its military capabilities on its western frontiers and can benefit from asymmetric strategies, quick decision-making processes, and strategic surprise. NATO should react with a double strategy. The Atlantic Alliance has to improve credible military reassurance for its Eastern members, and NATO should promote confidence-building measures to avoid unintended military confrontation and maintain chances for cooperation with Russia in areas where the interests of both sides overlap.

The Growing Role of Military Power in Russian Foreign Policy

The growing role of military power in Russia's foreign policy toolbox corresponds with an extended list of legal options for dispatching armed forces beyond Russia's external borders. "We should not tempt anybody with our weakness... Our country faces the task of developing its military potential in keeping with the deterrence strategy and at the level of defensive sufficiency. Our Armed Forces, special services, and other security agencies should be prepared to provide quick and effective responses to new challenges. It is a necessary requirement for Russia to feel secure and for our partners to listen carefully to what our country has to say in various international formats." — Vladimir Putin, February 2012¹

perations in Georgia (2008), Ukraine (since 2014), and Syria (since 2015) point to the rising importance of military means in Russia's foreign policy toolbox. Indeed, Moscow's armed forces have never been conceived as an instrument exclusively for territorial defense and military deterrence but have always also served as a tool for political deterrence and power projection.² However, for the past decade, Moscow has increasingly backed up its coercive diplomacy with military muscle. Shows of force and threats to use military power became widely applied means to intimidate opponents and force them to refrain from challenging Russian "core interests." Likewise, Russia increasingly uses military power in order to enforce its own objectives. Although the armed forces of the Russian Federation were deployed abroad in the 1990s, military operations then proved to be either limited in time and scope or officially took the form of peacekeeping missions

(Georgia, Moldova, Kosovo). In contrast, against Georgia in 2008 and Ukraine from 2014, Russia practiced both conventional and unconventional warfare, with thousands of soldiers and a substantial amount of heavy weapons involved. Air strikes in Syria, in turn, represent Moscow's first expeditionary war outside of the post-Soviet space since the end of the Cold War.

The growing role of military power in Russia's foreign policy toolbox corresponds with an extended list of legal options for dispatching armed forces beyond Russia's external borders. While until November 2009, Russian troops could be deployed abroad only with the objective of fighting international terrorism or conducting peacekeeping missions, an amendment to the law "On Defense" has codified additional justifications that offer Moscow a broad variety of pretexts to authorize military action. For example, it permits the armed forces to repel an armed attack on Russian troops or Russian citizens abroad, or to assist another state by request of its leadership in repelling or preventing an armed attack.³ While the Kremlin cited both arguments to legitimize its military operation in Crimea, the latter served as the justification for intervention in Syria.

Furthermore, the growing willingness of Russia's leadership to make use of the country's military power is reflected in serious efforts to modernize its armed forces. In October 2008, Moscow started its most radical and comprehensive military reform since Soviet times. In fact, this is the only major modernization project that the Kremlin pursues with real decisiveness. These efforts are backed up by an increased defense budget and an ambitious

¹V. Putin, "Being Strong. National security guarantees for Russia," *RT*, February 19, 2012, https://www.rt.com/politics/ official-word/strong-putin-military-russia-711/.

² Besides military deterrence, mounting other warfare operations and using military force, the official website of the Russian Ministry of Defense lists "deterring political threats to the security or the interests of the Russian Federation" as well as "supporting economic and political interests" as objectives of its armed forces. Ministry of Defense of the Russian Federation, "Mission and Objectives of the Russian Armed Forces," http:// eng.mil.ru/en/mission/tasks.htm.

³ Furthermore, article 10 of the "Law on Defense" added the provision that the armed forces can be deployed abroad to combat piracy and ensure the security of shipping. Russian Federation, "О внесении изменений в Федералъный закон «Об обороне»" [On inserting changes to the Federal Law "On defence"], November 9, 2009, http://docs.cntd.ru/document/902183535.

armaments program. Since 2008, annual defense expenditures in terms of Russian rubles have more than tripled, from 1 trillion rubles to 3.15 trillion rubles (more than \$50 billion U.S. dollars at current exchange rates). While Russia spent 2.5 percent of its GDP on defense in 2000, the figure grew to more than 4 percent by 2015. One reason for that is the State Armament Program for 2011-20, which governs arms procurement and was endowed with 13 trillion rubles.⁴

This paper will focus on Russia's program for military modernization. It traces the ideas that have shaped the reform agenda and analyzes the impact on Russia's military capabilities.⁵ After seven years of reforms, Russian armed forces have successfully enhanced their combat readiness by enhancing training, increasing professionalization, and strengthening elite forces. Besides possessing an impressive arsenal inherited from Soviet times, Russia managed to modernize part of its military hardware. Although the economic crisis as well as production problems in the defense industry constrain Russia's military modernization program, even partially reformed armed forces can effectively underpin Russia's foreign policy interests, in particular its hegemonic ambitions in the post-Soviet space.

⁴ Global Security, "Russian Military Budget," http://www. globalsecurity.org/military/world/russia/mo-budget.htm.

⁵ In analyzing Russia's military capabilities, this paper will focus on the armed forces of the Ministry of Defense solely since they are the main actor in regard to military operations outside of the territory of Russia. However, in a broader sense the military capabilities of Russia encompass the armed units of other ministries and agencies — like the Ministry of the Interior, the Ministry of Emergencies, the Federal Security Service, and the Federal Border Guards — which number approximately 490,000 persons.

2 Russia's Ambitions, Threat Perceptions, and Visions of Warfare

Geopolitical Ambitions

are shaped by its political and military leadership's geopolitical ambitions, threat perceptions, and visions of warfare. The leadership adheres to the traditional self-perception of Russia as a great power. Although not striving for global hegemony, it aspires to a position as "one of the influential and competitive poles" in a multipolar world — understood as being a significant actor who co-determines the world order and whose interests have to be taken into consideration at least on all those issues and regions that Moscow defines as strategically important.⁶ Military might is seen as one of three pillars to Moscow's great power claim. In the diplomatic sphere Russia points to having a permanent seat in the UN Security Council and being part of key international formats like BRICS, the Six Party Talks on North Korea's nuclear program, and P5+1 Iran negotiations. The second pillar of Russia's great power claim is its possession of vast energy reserves. The third pillar is military might. In this context, nuclear weapons play an important role as one of the last remnants of former superpower status where Russia is still on equal footing with the United States. Furthermore, upholding the great power claim requires Moscow's armed forces to uphold and develop its capabilities for power projection in strategically important areas.

ussia's plans for military modernization

While the Asia-Pacific, the Middle East, and the Arctic have become more important to Russia in recent years,⁷ the Euroatlantic region is still

Moscow's key point of reference. Here, Russia's great power claim boils down to revising the security architecture that was built after the end of the Cold War. Russia perceives it as being essentially unjust given NATO's central role and strives for a new setting that offers Moscow — de facto or de jure — a veto position.⁸ Since Russia has less economic and soft power than NATO and the EU, there is an increasing temptation to resort to military means to exert pressure on the Euroatlantic countries. However, Russia lags behind NATO's most advanced militaries in regard to conventional defense technology. Since trying to reach conventional parity would be a costly endeavor with unclear perspectives, Russia focuses on asymmetric compensation strategies like enhancing the capabilities for strategic surprise, anti-access/ area-denial operations (A2AD),⁹ or hybrid warfare. Furthermore, it substantially modernizes its nuclear arsenal and increasingly sharpens its nuclear rhetoric vis-à-vis the West.

Russia's great power identity shows its most assertive form in regard to the post-Soviet space, where Moscow strives for a sphere of influence.¹⁰ In this region, Moscow claims to exclusively define

Russia's great power claim boils down to revising the security architecture that was built after the end of the Cold War.

⁶Ministry of Foreign Affairs of the Russian Federation, "Concept of the Foreign Policy of the Russian Federation," February 18, 2013, http://archive.mid.ru//brp_4.nsf/0/76389FEC168189ED44 257B2E0039B16D.

⁷ The Foreign Policy Concept mentions as priority regions in the following order: Commonwealth of Independent States (the post-Soviet space), Euroatlantic region, United States, Arctic, Asia-Pacific region, Middle East and North Africa, Latin America, and Africa. "Concept of the Foreign Policy of the Russian Federation."

⁸ In order to reduce the key role that NATO gained after the end of the Cold War in Euroatlantic security, Russia in the early 1990s tried to strengthen the OSCE. In 2008 and 2009, thenpresident Dmitry Medvedev offered to sign a security treaty based on the principle of "indivisible security," which essentially would have given Russia a veto power over key issues of NATO like further enlargement. President of Russia, "The Draft of the European Security Treaty," November 29, 2009, http:// en.kremlin.ru/events/president/news/6152.

⁹ Anti Access/Area Denial strategies deny an opponent from accessing a specific region and operating within that territory, for example by using sophisticated air defense systems.

¹⁰ The Russian leadership leaves it open whether the Baltic states that became NATO and EU members in 2004 are included in its "sphere of privileged interest" or not. While the Foreign Policy Concept of 2013 mentions the members of the Commonwealth of Independent States (CIS) and the Collective Security Treaty Organization (CSTO) as a distinctive group excluding the Baltic countries, the Military Doctrine of 2014 uses the more broad term "neighboring countries," which does not specifically exclude Latvia, Lithuania, and Estonia.

the rules of the political game and restrict the engagement of outside actors as well as the right of sovereign countries to pursue an independent foreign and domestic policy, in particular to choose their alliances. This quest for hegemony is not a new phenomenon. In the 1990s, the post-Soviet space was labelled as Russia's "near abroad," and in 2008, then-President Dmitry Medvedev spoke of a "zone of privileged interests."11 However, since Putin began his third term in 2012, Russia has underpinned its hegemonic demands with increasing political, economic, and military muscle. In order to uphold its claim for hegemony, the Russian armed forces need to have capabilities both for fulfilling the role of the main regional security provider — for example in countering transnational threats like international terrorism, and weapons or drug smuggling — as well as to enforce its interests by rapid military intervention.

Threat Perceptions

While geopolitical interests shape the broader level of ambition for Russia's military transformation, threat perceptions reveal the vulnerabilities that the armed forces should be able to counter. Although the new military doctrine of December 2014 assesses the likelihood of a large-scale war as still minor, it draws a grimmer picture of Russia's security environment.¹² While the doctrine of 2010 was written under the circumstances of Russian-Western "reset" and increasing oil prices, the new document reflects strained relations with NATO, the EU, and the United States; armed conflicts in Syria and Ukraine; and Russia's declining economy in the context of low energy prices and sanctions.¹³

Like the military doctrine of 2010, the new document distinguishes between military dangers and military threats. Dangers are precursors of threats that contain a "real possibility of an outbreak of a military conflict."14 Scenarios relating explicitly to NATO and implicitly to the United States continue to top the list of dangers and threats. The first set of Western-related military risks refers traditionally to NATO's out-of-area operations without a UN mandate and the alliance's activities in Eastern Europe. Extending NATO and "bringing military infrastructure to" and "deploying military contingents of foreign states (group of states) on the border of Russia" are assessed as dangers. The "demonstration of military force in the course of exercises" in Russia's neighborhood is even rated as a threat. Against this background, NATO's Readiness Action Plan, which the alliance agreed upon in September 2014 to reassure its Eastern European members, is perceived in Moscow as both a danger (in build-up of infrastructure and deployment of personnel) as well as a threat (in the conducting of exercises).

The second set of Western-related risks is linked to growing U.S. capabilities in the field of non-nuclear strategic weapons. While both countries possess nuclear arsenals of similar dimensions, Moscow lags behind in developing new conventional defensive and offensive weapons — like strategic missile defense, conventional high-precision longAlthough the new military doctrine of December 2014 assesses the likelihood of a large-scale war as still minor, it draws a grimmer picture of Russia's security environment.

¹¹ P. Reynolds, "New Russian World Order: The Five Principles," *BBC*, September 1, 2008, http://news.bbc.co.uk/2/hi/ europe/7591610.stm.

¹² The new military doctrine points to a "general complication of international relations" naming in particular "increased global competition, tensions in various areas of inter-state and inter-regional interaction, instability of the processes of economic and political development" and "unresolved regional conflicts." Security Council of the Russian Federation, "Военная доктрина Российской Федерации" [Military Doctrine of the Russian Federation], December 25, 2014, http://www.scrf.gov.ru/documents/18/129.html.

¹³ See also M. Klein, "Russia's New Military Doctrine. NATO, the United States, and the 'Colour Revolutions," SWP Comments, no. 9 (February 2015), https://www.swp-berlin.org/fileadmin/ contents/products/comments/2015C09_kle.pdf.

¹⁴ "Военная доктрина Российской Федерации" [Military Doctrine of the Russian Federation].

Russia's political and military leadership describe phenomena like the "Arab Spring" and "color revolutions" as externally instigated processes, as a "new form of Western warfare" to limit Russia's influence. range systems, or space weapons.¹⁵ For the first time, the new military doctrine explicitly mentions Washington's concept of prompt global strike.¹⁶ Consequently, Russia's leadership is concerned that the overall strategic balance that encompasses both nuclear and non-nuclear strategic weapons will be changed further in favor of Washington.¹⁷

While these two traditional sets of grievances have already been enshrined in the previous doctrines and only been reinforced in the course of growing Russia-Western tensions, a new, third element was added in 2014: a close link between external (Western) actions and domestic risks.¹⁸ Russia's political and military leadership describe phenomena like the "Arab Spring" and "color revolutions" as externally instigated processes, as a "new form of Western warfare" to limit Russia's influence in strategically important areas by either destroying Russia-friendly regimes or by creating a "zone of chaos" around Russia and with the overall aim of changing the political regime in

¹⁷ V. Putin, "Presidential Address to the Federal Assembly," President of Russia, December 4, 2014, http://en.kremlin.ru/events/ president/news/47173. Russia itself.¹⁹ Thus Russian threat perceptions with regard to Western actors, intentions, and means have been broadened in the new military doctrine. They ceased to focus primarily on the hard power of NATO and the United States but now encompass soft capabilities — for example of the EU — as well.²⁰ In essence, the Russian leadership views itself as being in the midst of a comprehensive conflict with the West where the military component is only one part.²¹

In close connection to external and internal risks stemming from the West, the new doctrine is very attentive to developments in the post-Soviet space as well. In its neighborhood, Moscow rates the establishment of regimes that "threaten Russia" ("color revolutions"), the escalation of interethnic and interfaith tensions ("frozen conflicts" in Abkhazia, South Ossetia, Nagorno-Karabakh, and Transnistria and religious and ethnic conflicts

²⁰ For example, an article in Военная мысль [Military Thought] identified the European Court for Human Rights as a threat to the national security of Russia. О.Р. Sibileva, "Дуятелъностъ Европуйского суда по правам уеловека как угроза национальной безопасности России" [The activity of the European Court for Human Rights as a threat to the national security of Russia], Военная мысль [Military Thought], по. 7 (2014), р. 52-60.

²¹ This is reflected in the new military doctrine that, in contrast to the 2010 version, speaks about an "increased global competition over values and modes of development." "Военная доктрина Российской Федерации" [Military Doctrine of the Russian Federation].

¹⁵ А.Ү. Bogdanov, S.A. Popov, and M.S. Ivanov, "Перспективы ведения боевых действий с исполъзованием сетецентрических технологий" [Perspectives to conduct military actions by using network centric technologies], Военная мысль [Military Thought], no. 3 (2014), p. 4-12.

¹⁶ "Военная доктрина Российской Федерации" [Military Doctrine of the Russian Federation]. The concept of prompt global strike is based on conventional long-range precisionguided weapons that can have a similar effect to nuclear intercontinental ballistic missiles. Russia therefore is concerned that an increasing U.S. capability for prompt global strike in addition to strategic missile defense could undermine its nuclear deterrent. In response, Russia is enhancing counter-measures to strategic missile defense, modernizing its nuclear deterrent and investing in its own capabilities for prompt global strike.

¹⁸ For the first time, the doctrine of 2014 contains a separate chapter devoted to "internal military risks."

¹⁹ The internal military threat perception is largely influenced by mass protests in 2011-12 in Moscow and St. Petersburg and by color revolutions in Georgia and Ukraine. This is reflected in "activities aimed at forcibly changing the constitutional system of the Russian Federation," "destabilizing the domestic political and social situation, subversive informational activities against the population, especially the young citizens, aimed at undermining the historical, spiritual, and patriotic education." Direct foreign involvement in these processes forms one of the main concerns reflected in "subversive activities of intelligence services" and external financing. "Военная доктрина Российской Федерации" [Military Doctrine of the Russian Federation]; see also A.N. Bel'skiy and O.Klimenko, "Политические технологии «цветных революций»:пути и средства противодействия" [Politicial technologies of the "colored revolutions": ways and means to resist], Военная мысль [Military Thought], no. 9 (2014), p. 3-11.

in the South Caucasus and Central Asia) and "territorial claims" (Crimea) as military dangers. Foreign shows of force in the course of exercises and partial or full mobilization (as of the Ukrainian military) are considered military threats.

Besides risks emanating from the West and post-Soviet space, transnational dangers are mentioned in the new military doctrine in more detail than in the previous version: proliferation of weapons of mass destruction, global terrorism and extremism, organized crime, and drug and arms smuggling. This reflects risks that Russia faces both on its fragile external borders (Afghanistan, Central Asia, the South Caucasus) and internally (in the North Caucasus) with the sudden culmination of the rise of the self-proclaimed Islamic State group (ISIS), a growing number of Russian citizens — mainly from the North Caucasus — fighting in its ranks, and Russia's operation in Syria against opponents of the regime of Bashar al-Assad and to some extent against ISIS putting even more pressure on Russia.

Due to political restraint in light of an evolving "strategic partnership" with Beijing, security concerns in regard to China are not mentioned explicitly in the new military doctrine. However, there are hints here, too. "Demonstration of military force in the course of exercises" on the border and capabilities to "impede the operation of systems of state governance and military command and control" apply not only to NATO and the United States, but partially to China as well.²² While Russia for a long time possessed conventional superiority over China, the balance is partially changing in favor of Beijing. Deep rooted concerns about the growing military capabilities and uncertain long-term intentions of China's leadership are exposed more openly in the military journal *Voennaya Mysl* (*Military Thought*). Several articles point not only to the traditional threat perception of a possible mass influx of Chinese migrants but to growing resource conflicts, too, where an increasingly assertive China could be tempted to use military power to enforce access to the natural resources of Russia's eastern territories.²³

Visions of Modern Warfare

Besides geopolitical ambitions and threat perceptions, the transformation of Russian armed forces is influenced by the military elite's views of future warfare. These, in turn, are shaped by global trends in military affairs as well as by "lessons learned" from specific military operations that Western countries and Russia have conducted. In general, a growing unpredictability of military conflicts is observed. "Wars aren't declared anymore and the ones that have started do not proceed to familiar models," the chief of the Russian general staff, Valery Gerasimov, stated in February 2013.24 Traditional large-scale inter-state wars, where two similarly strong opponents fight mainly along long frontlines after a long period of mobilization and an official declaration of war, are seen as a thing of the past. Modern wars are perceived as emerging and escalating — quickly with preparations being covered by deceit, disinformation, or under the pretext of maneuvers.²⁵ This gives a competitive

Modern wars are perceived as emerging and escalating — quickly with preparations being covered by deceit, disinformation, or under the pretext of maneuvers.

²² In 2006 and 2009, China pursued large-scale exercises in the regions bordering on Russia, which raised concerns in Moscow. S. Saradzhyan, "The Role of China in Russia's Military Thinking," *Russian Analytical Digest*, May 4, 2010, p. 5-7.

²³ See for example R.M. Gasanov "Развитиу судостроения и Военно-Морского Флота Россия — важная составляющая обеспечения бесопасности страны" [The development of shipbuilding in the Navy of Russia — an important condition for protecting the country's security] Военная мысль [Military Thought], no. 2 (2011), p. 13-25.

²⁴ V. Gerasimov, "Ценностъ науки и предвидений" [The value of science and foresight], Военно-Промышленнии курер [Military-Industrial Courier], February 27 — March 5, 2013, http://vpk-news.ru/sites/default/files/pdf/VPK_08_476.pdf.

²⁵ V. Gerasimov.

edge to those actors who are willing to take the strategic initiative.²⁶

In order to cope with U.S. superiority and developing Chinese capabilities, the new military doctrine introduces the concept of "non-nuclear deterrence."

Two types of modern warfare are at the center of Russian military thinking. The first refers to military conflicts that start with attacks from air and space and involve capabilities for networkcentric warfare like "high precision weapons, advanced information and communication systems, robotics and enhanced centralization and computerization of command and control."27 This kind of long-distance, non-contact war reflects both "lessons learned" from U.S. and Western operations in Iraq, Kosovo, and Libya as well as increasing U.S. capabilities for "prompt global strike" but picks up Nikolay Ogarkov's ideas of "revolution in military affairs" from late Soviet times, too.28 In order to cope with U.S. superiority and developing Chinese capabilities in this kind of warfare, the new military doctrine introduces the concept of "non-nuclear deterrence."29 Moscow should enhance its own capabilities for non-nuclear strategic defense and offense by strengthening early warning air and missile defense systems, by acquiring long-range precision targeting conventional weapons that can hit deep into the opponent's territory, and by developing anti-access/area-denial capacities.³⁰

The second type of warfare that Russian military thinking focusses on is labelled "non-linear" or "hybrid warfare."³¹ Officially, it reflects Moscow's perception of "color revolutions" and the "Arab Spring" as a "new form of Western warfare."³² However, it can resort to Soviet and Russian experiences with asymmetric warfare, too, and mirrors Moscow's actions in Ukraine. "Non-linear warfare" is characterized by blurring lines between war and peace, between regular and irregular forces, and between military and non-military means. These wars are not formally declared but "simply begin" with phases of ceasefire, asymmetric, and de facto conventional warfare constantly changing. Regular forces are used either covertly (training and supporting proxies) or openly under the "guise of peacekeeping" or in the conflict's final phase to secure gains. The degree to which military force is applied depends on the effectiveness of non-military means, which --

²⁶ P. Mattson and N. Eklund, "Russian Operational Art in the Fifth Period: Nordic and Arctic Implications," *Revista de Ciencias Militares* [Journal of Military Sciences], no. 1 (2013), p. 29-47.

 $^{^{27}}$ "Военная доктрина Российской Федерации" [Military Doctrine of the Russian Federation].

²⁸ S.G. Chekinov and S.G. Bogdanov "Стратегическое сдерживание и националъная бесопасностъ России на современном етапе" [Strategic deterrence and national security of Russia in the contemporary phase], Военная мысль [Military Thought], no. 3 (2012), p. 12-20; P. Mattson and N. Eklund.

²⁹ "Военная доктрина Российской Федерации" (Military Doctrine of the Russian Federation).

³⁰ See "Военная доктрина Российской Федерации" (Military Doctrine of the Russian Federation); D.A. Ruiz Palmer, "Back to the future? Russia's hybrid warfare, revolutions in military affairs, and Cold War comparison," in NATO Research Paper, no. 120 (2015), p. 7, http://www.ndc.nato.int/news/news.php?icode=859.

³¹ S.G. Chekinov and S.G. Bogdanov, "The Nature and Content of a New-Generation War," *Military Thought*, no. 3 (2014), http://www.eastviewpress.com/Files/MT_FROM%20THE%20 CURRENT%20ISSUE_No.4_2013.pdf; V. Gerasimov; A.A. Serzhantov and A.P. Martoflyal, "Анализ особенностей современных военных конфликтов" [Analyzing the characteristics of modern military conflicts], Военная мысль [Military Thought], no. 5 (2011), p. 36-44.

³² Anthony H. Cordesman shows key slides that Minister of Defense Shoygu and Chief of General Staff Gerasimov used in their presentations at the Moscow Security Conference in May 2014: A.H. Cordesman, "Russia and the 'Color Revolution': A Russian Military View of a World Destabilized by the U.S. and the West (Key Briefs)," CSIS, May 28, 2014, http://csis.org/ files/publication/140529_Russia_Color_Revolution_Summary. pdf; see also A. Bartosh, "Гибридные воинй в стратегий США и НАТО" [Hybrid warfare in the strategies of the United States and NATO] Независимое воеррое обозрение [Independent Military Review], October 10, 2014, http://nvo. ng.ru/concepts/2014-10-10/1_nato.html; V.A. Kisilev and I.N. Vorob'ev "Гибридные операции как новой вид военного противоборства" [Hybrid warfare as a new form of military counteraction], Военная мысль [Military Thought], no. 5, April 2015. An assessment how Russia implemented hybrid warfare in Ukraine can be found in A. Rácz, "Russia's Hybrid War in Ukraine: Breaking the Enemy's Ability to Resist," Finnish Institute of International Affairs, FIIA Report, no. 43 (2015), http://www.fiia.fi/en/publication/514/russia_s_hybrid_war_in_ ukraine/.

according to Gerasimov - should be four times as effective as military means.³³ The military doctrine describes "non-linear warfare" as the "integrated use of military force and political, economic, informational, or other non-military measures with the wide use of the protest potential of the population and of special operation forces."³⁴ In the non-linear setting, even the objectives of warfare are blurred — either unintended or intended to increase ambiguity. The aim is not so much military victory as to secure constant influence on the military-strategic, political, and societal situation. In regard to military transformation, the requirements of non-linear warfare put an emphasis on quick decision-making processes, effective interagency coordination, and well-trained and rapidly deployable special forces.

³³ V. Gerasimov.

³⁴ "Военная доктрина Российской Федерации" [Military Doctrine of the Russian Federation].

OBJECTIVES OF MILITARY TRANSFORMATION

Then-Chief of the General Staff Nikolay Makarov and then-Minister of Defense Anatoly Serdyukov used the Georgia war as a catalyst to push through the most radical and comprehensive military reform in several decades.

lthough many ideas to modernize Russian armed forces had already been developed in the 1990s and early 2000s, their implementation failed due to resistance from within the military elite, the political leadership's lack of political will to push reforms through, and insufficient financial resources.35 The results became obvious during the Georgia war in August 2008 when the Russian armed forces did not gain victory not because of "quality" but because of quantity in terms of material and personnel. According to then-chief of the general staff, Nikolay Makarov, only 17 percent of ground units were combat ready, many senior officers were incapable of commanding troops, and instead of joint operations, the ground forces, navy, and air force proceeded without meaningful coordination.³⁶

Makarov and then-Minister of Defense Anatoly Serdyukov used the Georgia war as a catalyst to push through the most radical and comprehensive military reform in several decades. Their successors — Chief of the General Staff Valery Gerasimov and Minister of Defense Sergey Shoygu — largely continued with the reform program, with only minor adjustments and modifications.³⁷ In essence, the military reform that started in October 2008 is directed at giving the armed forces a completely "new look"³⁸ by replacing the outdated mass mobilization army that prepared to fight a largescale land war with combat-ready armed forces that are able to pursue a broader set of functions — from nuclear and non-nuclear deterrence, conventional warfare in local and regional conflicts to "non-linear warfare" and combating terrorism.³⁹ To achieve the transformation, Russian military reform focuses on two basic tasks: modernizing hardware and enhancing combat readiness.⁴⁰

Modernizing Weapons and Equipment

In the 1990s, Russia's conventional armed forces went through a phase of serious decay. Although they inherited an impressive arsenal from Soviet times in terms of quantity, due to financial constraints they were unable to purchase modern weapons or service the existing ones sufficiently. In consequence, in March 2009, Minister of Defense Anatoly Serdyukov estimated the share of "modern" weapons to be only 10 percent and set a target of 30 percent modern equipment by 2015 and 70 percent by 2020.⁴¹ Although it is not clear if "modern" means new or updated and what

⁴⁰ On September 26, 2008, then-President Medvedev named five priority areas for military reform: make armed forces permanent combat ready, enhance efficient management, improve training and military education, rearm, and improve social aspects. D. Medvedev, "Opening Adress at a Meeting with Commanders of Military Districts," President of Russia, September 26, 2008, http://en.kremlin.ru/events/president/transcripts/1535.

³⁵ Instead of developing a comprehensive and coherent reform program, military transformation in the 1990s and early 2000s was limited to single aspects like reducing the force level or attempting to attract more soldiers on contract basis. For more details, see A. Gayday, "Reform of the Russian Armed Forces," in M. Barabanov (ed.): *Russia's New Army*, (Moscow: Centre for Analysis of Strategies and Technologies, 2011), p. 9-32.

³⁶ D. Solovyov, "Russian Army Not Fit for Modern War: Top Russian General," *Reuters*, December 16, 2008, http://www. reuters.com/article/us-russia-army-idUSTRE4BF5JM20081216.

³⁷ Some modifications were purely symbolic and served to calm down resistance within the military elite, for example by reestablishing some traditional ground force units that had been disbanded. More substantially, Shoygu and Gerasimov put more emphasis on centralized decision-making and inter-agency coordination as well as on large-scale exercises without prior notification ("snap exercises").

³⁸ D. Medvedev, "Speech at an Extended Session of the Defense Ministry Board," President of Russia, March 17, 2009, http:// en.kremlin.ru/events/president/transcripts/3460.

³⁹ According to the official website of the Russian Ministry of Defense, the armed forces should have the capability to fight terrorism, extremism, and separatism; undertake strategic deployment and peace enforcement operations; and be able to wage two concurrent armed conflicts through the use of ready forces. In wartimes, the armed forces shall beat back an aerospace attack and prosecute two local wars. "Mission and Objectives of the Russian Armed Forces."

⁴¹ Ministry of Defense of the Russian Federation, "Доля современных вооружении российской армии составляет около 10 процентов" [The share of modern weapons in the Russian army is about 10 percent], http://www.mil.ru/ info/1069/details/index.shtml?id=60116.

the basic reference of the mentioned percentages is, these are clearly ambitious goals. The "State Armament Program 2011-20" made the target numbers official and allocates nearly \$700 billion in spending by 2020, for 2,300 main battle tanks, 600 aircraft, 1,000 helicopters, 28 regiments of S-400 air defense systems each having up to 72 launchers, 16 submarines, and 51 surface ships, among other weapons systems.⁴²

Nuclear Modernization

The State Armament Program gives priority to strategic nuclear forces, which reflects the central role they are assigned in regard to underpinning Russia's great power claim — as one of the last areas where Russia is still on equal footing with the United States — as well as in securing deterrence from large-scale attacks. Putin describes nuclear weapons as the "claws and teeth of the Russian bear."⁴³

Efforts to modernize Russia's nuclear arsenal started in the 1990s⁴⁴ but have accelerated in recent years. The State Armament Program envisages the procurement of 400 new land- and sea-based intercontinental ballistic missiles (ICBMs, SLBMs) and 8 strategic submarines (SSBNs). By 2022, all Soviet ICBMs shall be replaced with new missiles, for example the SS-18 with the new heavy liquid fuel "Sarmat" and the SS-19 with the "Yars."45 But modernization of land-based nuclear ballistic missiles is not just about phasing out old delivery systems. Since Russia will probably have fewer ICBMs by the beginning of the 2020s, it tries to enhance the new missiles' effectiveness and survivability by equipping them with multiplereentry vehicles (MIRVs) and by focusing on mobile versions instead of silo-based versions.46 After years of problems with failed test flights of the new sea-based strategic nuclear missile "Bulava," it apparently was commissioned in 2014. In consequence, the three already-built modern strategic submarines "Borey" will be armed with these missiles. By 2020, five additional "Borey" submarines will be built and then gradually replace the aging Delta IV SSBNs.⁴⁷ Even if Russia will have fewer SSBNs than the United States by 2020, the fact that "Bulava" is MIRVed will mostly compensate for this.48 Furthermore, Russia is modernizing the air-based pillar of its nuclear triad as well. For this reason, several of the heavy bombers Tu-160 and Tu-95MS will get new equipment to improve their performance and extend their life span for two further decades. In the spring of 2015, Shoygu announced the resumed production of the Tu-160 in a new version. Hereby, Russia gains time to develop and produce the new strategic bomber "PAK-DA" that should replace the

47 H.M. Kristensen and R.S. Norris, p. 90f.

Putin describes nuclear weapons as the "claws and teeth of the Russian bear."

⁴² Y. Fedorov, "State Armament Program 2020: Current State and Outlook," September 2013, http://www.pircenter.org/ media/content/files/11/13781899761.pdf. Russia's leadership is currently working on a new State Armament Program 2016-2025. President of Russia, "Meeting on drafting the 2016-2025 State Armanent Programme," September 10, 2014, http:// en.kremlin.ru/events/president/news/46589.

⁴³ President of Russia, "News conference of Vladimir Putin," December 18, 2014, http://en.kremlin.ru/events/president/ news/47250.

⁴⁴ For example, the development of the "Topol M" ICBM (SS-27), the SLBM "Bulava," and the SSBN "Borey" started at the beginning of the 1990s.

⁴⁵ Besides the SS-18 and the SS-19, the SS-25 (Topol) will be decommissioned by the early 2020s, too. Apart from the "Sarmat" and two versions of the SS-27 ("Topol M" with a single warhead and "Yars" with multiple warheads), Russia is working on another version of the SS-27 ("Yars-M") that was tested to intermediate range as well. H.M. Kristensen and R.S. Norris, "Russian nuclear forces, 2015," *Bulletin of the Atomic Scientists*, no. 3 (2015), p. 89.

⁴⁶ According to estimates, from 2015 to the early 2020s, the share of land-based strategic nuclear weapons that are equipped with MIRVs will increase from 43 percent to 73 percent and the share of those who are placed on mobile launchers will rise from 32 percent to 66 percent. H.M. Kristensen and R.S. Norris.

⁴⁸ H.M. Kristensen and R.S. Norris, p. 92.

By renewing its strategic nuclear weapons, Moscow will be able to uphold the idea of nuclear parity with the United States, although probably not in a strict numeric sense. Tu-95 and the old Tu-160 after 2023.⁴⁹ By renewing its strategic nuclear weapons, Moscow will be able to uphold the idea of nuclear parity with the United States, although probably not in a strict numeric sense.⁵⁰

Besides modernizing its strategic nuclear arsenal, Russia is updating its tactical nuclear weapons, too, although clear assessments are more complicated due to a lack of transparency. Here, serious effort seems to be directed at modernizing non-strategic capabilities that can be used both with nuclear as well as with conventional weapons, for example the "Iskander" short-range ballistic missile or the "Kalibr" sea-launched cruise missile. Together with the lack of transparency in regard to Russian tactical nuclear weapons, this exacerbates Western concerns relating to the role of these arms in Moscow's military planning.⁵¹

Ground Forces

Modernization of ground forces has proceeded both by upgrading existing weapons systems as well as by developing and purchasing new models. Here, special emphasis has been placed on tanks and armored vehicles with improved protection and mobility, missile, and artillery systems with precise targeting capabilities and electronic warfare. For example, the Russian defense industry is working on new platforms for battle tanks ("Armata"), infantry fighting vehicles ("Kurganets"), and wheeled armored personnel carriers ("Boomerang") with better survivability for crews due to improved armor and by higher efficiency in combat operations due to improved communication systems or night vision. In regard to high-precision weapon systems, the "Iskander" short-range missile has been produced since 2005. The new "Tornado" multiple rocket launcher with satellite navigation has begun to replace older, inaccurate systems ("Uragan," "Smerch," "Grad"). Besides these obvious modernization efforts, other developments that gain less public attention also enhance combat readiness substantially. This applies, for example, to the "Ratnik" individual battle dress with improved protection and advanced communication and navigation systems or the new tactical automated command and control system "Sozvezdie."52 All these new developments reflect a shift away from old thinking. Instead of focusing on sheer mass, which is easy to produce, they reflect a new emphasis on well-trained soldiers that can handle the complex systems and are better protected.

Aerospace Forces

The modernization of the aerospace forces is focused on combat aircraft and air defense. The new Su-34 strike fighters and Su-35 multirole fighters will gradually replace the aging Su-24, Su-27, MiG-29, and MiG-31. Besides, the air force is testing the first fifth-generation stealth combat aircraft — T-50 PAK FA — which should match qualitatively with the U.S. F-22. These new aircraft represent a significant improvement in regard to precision strikes, maneuverability, and cover. Furthermore, Moscow plans to overcome its shortage in transport aviation and refueling planes

⁴⁹ N. Novichkov, "Russia's future PAK-DA bomber to be delayed by Tu-160M2 production," *IHS Jane's Defense Weekly*, July 20, 2015, http://www.janes.com/article/53102/russia-s-future-pakda-bomber-to-be-delayed-by-tu-160m2-production.

⁵⁰ S. Pifer, "Overblown: Russia's Empty Nuclear Sabre-Rattling," *The National Interest*, March 17, 2015, http://www.brookings. edu/research/opinions/2015/03/17-russia-nuclear-weaponsmodernization-pifer.

⁵¹D. Adamski, "Cross-Domain Coercion: The Current Russian Art of Strategy," IFRI Proliferation Papers, no. 54 (2015), http:// www.ifri.org/sites/default/files/atoms/files/pp54adamsky.pdf.

⁵² R. McDermott, "Moscow Displays New Military Hardware Amid Rising Tensions (Part Two)," *Eurasia Daily Monitor*, no. 84, May 5, 2015, http://www.jamestown.org/programs/edm/ single/?tx_ttnews[tt_news]=43878&cHash=7e1bf5b1e&b60016 ed98201ab256dd9d#.VmkFG7-IrX4; D. Gorenburg, "Capabilities of the Russian Ground Forces," *Russian Military Reform*, January 5, 2015, https://russiamil.wordpress.com/2015/01/05/ capabilities-of-the-russian-ground-forces/; N. de Larrinaga, "New Russian Heavy Armor Breaks Cover," *IHS Jane's Defense Weekly*, April 22, 2015, http://www.janes.com/article/50896/ new-russian-heavy-armour-breaks-cover.

in order to enhance mobility and power projection capabilities of its armed forces. While Russia made significant progress in building tactical reconnaissance UAVs, it still has no program for combat UAVs.⁵³

Another modernization focus is on strengthening early warning systems and air and space defense. For example, Russia is increasing its number of land-based early warning radars. Besides deploying further regiments of S-400 air defense missile systems, Moscow is already working on the successor system, the S-500. Here, geographic priority is given to the Western and Eastern Military Districts, reflecting the capabilities of NATO and China to conduct large airspace operations.

Navy

Since the end of Soviet times, the navy has proved to be the branch of Russian armed forces that suffered most from underfunding and a general decline in ship-building capabilities. In consequence, existing ships were badly maintained, and not a single large ship was procured for over a decade in the 1990s.

The State Armament Program contains an ambitious modernization plan for the navy, too. Priority is given to strategic nuclear deterrence by integrating the new "Borey" submarines into the Northern and Pacific Fleet to uphold Russia's naval presence in strategically important areas, to strengthening coastal defense and protecting sea lines, and to enhancing anti-access/area denial capabilities. Therefore, ships are being refurbished, projects that began in the 1990s are being completed and new vessels are being built like the "Steregushchy" corvette and the "Gorshkov" frigate. The geographic focus lies on protecting Russian claims in the Arctic, securing a Russian presence in the Mediterranean, and strengthening the Black Sea Fleet. Until the annexation of Crimea, Moscow was restricted by the Russian-Ukrainian treaty from modernizing its vessels in the Black Sea Fleet. Now, it is trying to fortify Crimea by deploying new corvettes, frigates, and submarines.

Even if Russia's navy will realize only part of its modernization program, due to problems in regard to the ship-building industry, severed ties with Ukrainian shipyards, and failed cooperation projects with advanced partners, like building the "Mistral" helicopter carrier with France, by 2020 it nevertheless will enhance its capabilities for coastal defense, supporting combat, and anti-area/ access denial operations in the Baltic, Black, and Mediterranean Seas in particular. However, Russia will still lack a navy that is able to sustain its global great power claims. Despite announcements about recreating a blue-water navy, Russia's ship-building industry lacks the capability to build new cruisers and destroyers in large numbers, not to mention aircraft carriers, from a short- to mid-term perspective.54

Prospects of Military Modernization

The results of Moscow's weapons modernization program are mixed. While for a long time, Russia was only capable of upgrading Soviet designs, it now develops and produces entirely new systems like "Armata" or "T-50 PAK FA." Specific progress has been made in regard to force multipliers like automated command and control systems or Since the end of Soviet times, the navy has proved to be the branch of Russian armed forces that suffered most from underfunding and a general decline in ship-building capabilities.

⁵³ D. Gorenburg, "Russian Air Force capabilities and procurement plans," *Russian Military Reform*, January 27, 2015, https:// russiamil.wordpress.com/2015/01/27/russian-air-force-capabilities-and-procurement-plans/; *IHS Jane's*, "State of Play: Russia's State Armament Programme and Implications for Future Capabilities," 2015.

⁵⁴ D. Gorenburg, "Russian Naval Capabilities and Procurement Plans," *Russian Military Reform*, January 14, 2015, https:// russiamil.wordpress.com/2015/01/14/russian-naval-capabilitiesand-procurement-plans/; I. Sutyagin, "Russia's New Maritime Doctrine: Attacking NATO's Sea Lanes of Communication in the Atlantic — Part II of II: Sustainability, Future Capabilities and Potential Countermeasures," RUSI Defence Systems, August 28, 2015.

	2011	2014
Stratagia Nuclear Foreas	2011	2014
Strategic Nuclear Forces		
Intercontinental Ballistic Missiles (ICBMs)	7	18
Ballistic Missile Submarines (SSBNs)	0	1 (n) 1 (r)
Submarine-Launched Ballistic Missiles (SLBMs)	21-23	24
Aerospace Forces		
Strategic and Long-Range Bombers	5 (r)	17 (u/r)
Tactical Bombers	6	18 (n) 18 (r)
Attack Planes	8 (u/r)	16 (u/r)
Fighters	10 (n) 15 (u)	51 (n) 24 (u/r)
Helicopters	91	120
Transport Planes	5 (n) 13 (u/r)	6 (n) 8 (u/r)
S-400 Air Defense System Battalions	4	9
Ground Forces		
Tanks	70 (u)	293 (u/r)
Armored Combat Vehicles	196	307
Artillery, Missiles, Mortars	30	402
Navy		
Submarines	1(n) 1(r)	3 (n) 2 (r)
Corvettes	2 (r)	4 (n)
Amphibious Landing Ships	2 (r)	2 (r) 2 (n)

Figure 1: Selected Equipment in Russia's Military Modernization $\ensuremath{\mathsf{Program}}^1$

electronic warfare capabilities. Although reliable data in open sources are insufficient to evaluate/ validate the official announcement that the target number of 30 percent "modern" equipment by 2015 has successfully been reached,⁵⁵ one can definitely identify progress in particular areas and find foundations for further improvements.

However, shortcomings are seen in the ability of Russia's defense industry to produce the requested amount and quality in due time and to agreed costs, in problems due to cut ties with the Ukrainian defense industry, and in Western sanctions that forbid exports of weapons and dual-use goods. For example, both "Armata" as well as "T-50 PAK FA" have not yet reached mass production and only limited numbers have yet been ordered.56 Disrupting ties with Kyiv challenge the prospects of Russia's air force modernization since engines for helicopters and radars for fighter jets are produced

⁵⁵ President of Russia, "Meeting on Drafting the 2016-2025 State Armanent Programme," September 10, 2014, http://en.kremlin. ru/events/president/news/46589. Even independent sources like *IHS Jane's* give partial confirmation of the official numbers. In regard to the ground forces, *IHS Jane's* states a percentage of modernization of 32 percent in 2015. "State of Play: Russia's State Armament Programme and Implications for Future Capabilities."

⁵⁶ R. Weitz, "Hybrid Power: The Limits of Russia's Military Resurgence," *World Policy Review*, April 7, 2015, p. 3.

"n" means new, "u" means upgraded, and "r" means repaired. No notation indicates a new item.

¹Dates based on A. Frolov, "Comparison of Some Defense Procurement Indicators in 2011-2014," Moscow Defense Brief, No. 4 (2015), pp. 24-27.

in Ukraine.⁵⁷ Furthermore, the Ukraine crisis buried plans to purchase "Mistral" helicopter carriers from France and a ground forces training center from Germany. In the future, economic problems stemming from the effects of sanctions and declining energy prices could put further pressure on Russia's military modernization program.

Nevertheless, even if Russia is not able to reach the announced goal of 70 percent modern weapons by 2020, it still has a lot of hardware at its disposal that can be used in combat operations, in particular with inferior opponents, which describes most of the post-Soviet countries. In the Georgia and Ukraine wars, quantity has proved to be a quality in itself. Russia still operates 2,700 main battle tanks (with a further 17,500 in storage), 1,090 combat aircraft, 4,180 pieces of heavy artillery, 35 principle surface combatant ships, and 49 tactical submarines.⁵⁸ According to Swedish Defense Research Agency (FOI) estimates, even half of the ground force's equipment in 2013 "would be enough for an organization of 55 maneuver brigades."59 Furthermore, shortcomings can be compensated for by tactics — like surprise, deception, and speed — and by improving the training and combat readiness of the armed forces in general.60

Improving Combat Readiness

Since procuring modern hardware alone is not enough to enhance a country's military capabilities, the second pillar of Russia's military transformation rests on strengthening the combat readiness of its armed forces. This is reflected in efforts to streamline command and control structures, improve training, and professionalize the armed forces. While the first years of the military reform focused mainly on organizational changes, it now emphasizes training forces and improving the new structures.

Ending Mass Mobilization

Based on the assumption that contemporary military conflicts emerge quickly, the "new look"⁶¹ military seeks to create forces that can swiftly react to any scenario. This led to a fundamental rethinking of the concept of mass mobilization. Although Russia did not abandon military mobilization completely, it substantially reduced and adjusted its meaning. This is reflected in a sharp decline in the number of reservists from 20 million in 2008 to 2 million in 2014.⁶²

Furthermore, the organizational backbone of the mass mobilization army was disbanded by the end of 2009: the so called "skeleton" units that consisted primarily of officers and only in times of war would have been filled with reservists. It took up to a year to dispatch these patchwork units, which had not trained together before. In order to compensate for the loss of mass mobilization potential, all combat units should have had the status of "permanent Since procuring modern hardware alone is not enough to enhance a country's military capabilities, the second pillar of Russia's military transformation rests on strengthening the combat readiness of its armed forces.

⁵⁷ P. Baev, "Ukraine: A Test for Russian Military Reform," IFRI, Russie.Nei.Report, no. 19 (2015), p.3, https://www.ifri.org/sites/ default/files/atoms/files/ifri_rnr_19_pavel_baev_russian_military_reform_eng_may_2015_0.pdf.

⁵⁸ Interational Institute for Strategic Studies, "The Military Balance 2016: The Annual Assessment of Global Military Capabilities and Defence Economics," (London: IISS, 2016), p. 189-202.

⁵⁹ J. Hedenskog and C.V. Pallin (eds.), "Russian Military Capability in a Ten-Year Perspective — 2013," Swedish Defense Research Agency (FOI), 2013, p. 25.

⁶⁰ G. Gressel, "Russia's Quiet Military Revolution and what it Means for Europe," European Council on Foreign Relations, Policy Brief 2015, p. 6, http://www.ecfr.eu/page/-/Russias_ Quiet_Military_Revolution.pdf.

⁶¹ D. Medvedev, "Speech at an Extended Session on the Defense Ministry Board," President of Russia, March 17, 2009, http://archive.kremlin.ru/eng/speeches/2009/03/17/2037_ type82913type84779_214073.shtml.

⁶² Interational Institute for Strategic Studies, "The Military Balance 2015: The Annual Assessment of Global Military Capabilities and Defence Economics," (London: IISS, 2015), p. 185. In 2015, Putin ordered the creation of a "professional reserve" trying to bind former professional soldiers to the armed forces even after they left. There are no valid data yet in regard to the results of this move.

The new military doctrine of December 2014 emphasizes preparing the economic, industrial, and fiscal system as well as governance structures and "other troops" for wartime. operational readiness" by 2012, meaning that they should be fully manned and equipped. According to the chief of general staff, in summer 2013, 80 percent of units fulfilled that target.⁶³ Independent experts doubt these high figures and point to strong differences within the armed forces: while the Strategic Nuclear Missile Forces (the backbone of nuclear deterrence), the Airborne Troops (VDV an elite parachute-deployable force that is the core of rapid reaction capabilities) and ground forces in the Southern Military District (the hotspot for counter-terrorism, counter-insurgency, and local conflicts) exhibit high levels of combat readiness, only 30 percent of other units are estimated to be manned and equipped.⁶⁴ However, even with only 60 percent fully manned and equipped units, Russia would outperform most European armed forces --which, according to the European Defense Agency, are only 30.9 percent deployable and only 7.5 percent sustainably deployable.65

While the mobilization capacities of the armed forces were sharply reduced, the role of nonmilitary means in mobilization plans experienced a revival due to changing threat perceptions that focus more strongly on the threat of externally instigated "color revolutions" happening in Russia. Therefore, the new military doctrine of December 2014 emphasizes preparing the economic, industrial, and fiscal system as well as governance structures and "other troops" for wartime.⁶⁶ This gives Russia's leadership an instrument to intervene more efficiently in the economy and to discipline oligarchs and society under the pretext of a hyptothetical external threat.

Streamlining Command and Force Structure Switching from a mass mobilization army that was preparing for large-scale land war with NATO to armed forces that can rapidly react to any scenario requires substantial changes to the command and force structure, too.

The first step in Russia's combat readiness reforms was overhauling the chain of command. While previously command structure went down from military districts to armies, divisions, and regiments, since December 2009 it has encompassed only three levels: military districts, joint-operational commands, and brigades. The number of military districts was reduced from six to four (Western, Eastern, Central, and Southern) with an additional fifth established in 2015 (Arctic), and their role reduced to administration and logistics support. In each military district, a joint operational strategic command was established that commands all units of the branches (ground forces, aerospace forces, and navy) and arms (Airborne Troops) that are stationed there except for the strategic nuclear missile forces.⁶⁷ The new structure not only accelerates the decision-making process, since it reduces the number of involved commands from 16 to 3,68 both it also facilitates joint operations of the ground forces, aerospace forces, navy, and Airborne Troops, which were lacking during the Georgia war.69

As a second innovation, the new National Defense Management Center became operational

⁶³ J. Hedenskog and C.V. Pallin, p. 38.

⁶⁴ Ibid.

⁶⁵ G. Gressel, p. 8.

⁶⁶ "Военная доктрина Российской Федерации" [Military Doctrine of the Russian Federation].

⁶⁷ Russian armed forces have three services (vidy) — ground forces, aerospace forces, and navy — and two independent branches (rod) that are directly under the command of the general staff — the Airborne Troops and Strategic Missile Forces.

⁶⁸ IHS Jane's, "Jane's Sentinel Security Assessment — Russian Federation — Armed Forces," 2014.

⁶⁹ Furthermore, the new command structure allowed for disbanding the cumbersome ground force's divisions that were adequate for large-scale land operations along a front of several hundred kilometers. They were replaced by smaller brigades that permit more rapid actions in local and regional conflicts.

in December 2014.70 Equipped with advanced computer and communication systems, it enables Russia's military leadership to monitor the external political-military situation in and outside of Russia in real time, which improves strategic planning and facilitates quick decision-making. Furthermore, the National Defense Management Center not only commands and controls the different branches of the armed forces, but also ensures close coordination with 49 other security ministries and agencies such as the Ministry of the Interior, the Ministry of Emergency Situations, and Rosatom, the state nuclear energy corporation.⁷¹ As a result, joint operations of the armed forces are facilitated as well as inter-agency coordination. This, in particular, strengthens Russia's capabilities for "non-linear warfare" and for scenarios that include crisis management tasks or establishing an occupation regime. Overall, by further centralizing the decision-making process, Russia gains an advantage compared to NATO, which has to coordinate formally among 28 members.

The third innovation related to the command and control structure took place in August 2015 and consisted of merging the air force and aerospace defense forces into the aerospace forces. Integrating aviation, air and missile defense as well as space troops into one single command reflects Russian concerns about an attack from air and space as well as its desire to enhance its capabilities for operations beyond the traditional focus on ground forces — as with the aerospace-led war in Syria.⁷²

Enhancing Training

Organizational reforms are a necessary, yet insufficient step to enhance the combat readiness of the Russian armed forces. It has to be accompanied by improving the soldier's individual skills as well as the training of the troops. In contrast to the 1990s, when "the troops conducted exercises on maps, only on maps, the navy never left the dockyards, and the air force did not fly,"⁷³ Russian armed forces have made a huge leap forward since reforms started in 2008.

The number, duration, and complexity of maneuvers have grown substantially. While in 2008, only 8,000 servicemen participated in the biggest yearly exercise ("Zapad 2008"), the figure grew to 160,000 in 2013 (with 95,000 in 2015). Besides the annual strategic maneuvers that rotate between the four military districts and exercise warfare operations, in 2013 the new minister of defense, Sergey Shoygu, reintroduced snap inspections. Conducted without prior notification, they test how quickly and effectively the armed forces can switch from peacetime to war mode.74 Furthermore, exercises became more complex including not only joint operations from aerospace forces, ground forces, and navy but including troops from other agencies and ministries, too. The trained scenarios ranged from counter-insurgency and counterterrorism, amphibious, and airborne landing to conducting large-scale conventional air and ground attacks. Particular emphasis was put on enhancing strategic mobility, improving command and control, and increasing firepower. Besides exercises, Russia took advantage of military operations in Ukraine and Syria to not only test new weapons

73 V. Putin, "Annual Address to the Federal Assembly," Presi-

dent of Russia, May 10, 2006, http://archive.kremlin.ru/eng/

⁷⁴ J. Norberg, "Training to Fight: Russia's Major Mili-

tary Exercises 2011-2014," Swedish Defense Research

Institute (FOI), 2015, http://www.foi.se/sv/Sok/ Sammanfattningssida/?rNo=FOI-R--4128--SE.

speeches/2006/05/10/1823_type70029type82912_105566.shtml.

⁷⁰ The National Defence Management Center consists of a main center in Moscow and different smaller centers in the military districts.

⁷¹ R. McDermott, "Russia Activates New Defense Management Center," *Eurasia Daily Monitor*, November 4, 2014.

 ⁷² R. McDermott, "Russia Reforms Aerospace Defense Structures — Again," *Eurasian Daily Monitor*, August 1, 2015.

While in 2008, only 8,000 servicemen participated in the biggest yearly exercise, the figure grew to 160,000 in 2013.

and equipment
in real term
conditions
but to identify
shortcomings
in structure and
procedures.

Enhanced training improved both the individual skill of the soldiers as well as the collective skills of the units. For example, the flying hours of pilots in combat aircraft were enhanced from 40 hours in 2008 to 100 hours in 2014. Ground

	2011	2012	2013	2014	2015		
Annual Strategic	"Tsentr	"Kavkaz	"Zapad	"Vostok	"Tsentr		
Exercises	2011"	2012"	2013"	2014"	2015"		
Personnel	12,000	8,000	9,400	100,000	95,000		
Major Snap Exercises							
Personnel	None	None	80,000 in	150,000 in	38,000 in		
			Eastern	Western	Western		
			Military	and	Military		
			District	Central	District		
				Military			
				Districts;			
				100,000			
				in Eastern			
				Military			
				District			

Figure 2: Major Russian Military Evercises

¹ Based on J. Norberg, "Training to Fight: Russia's Major Military Exercises 2011-2014," FOI: Stockholm, December 2015, p. 65-77; President of Russia, "The Tsentr 2015 Strategic Headquarters Military Exercises," September 19, 2015, http://en.kremlin.ru/events/president/news/50329; B. Jones, "Russia Places 38,000 Troops on Alert for Snap Exercises," *IHS Jane's 360*, March 16, 2015, http://www.janes.com/article/49967/ russia-places-38-000-troops-on-alert-for-snap-exercises.

force training days and ship days at sea have also been increased.⁷⁵ While Crimea demonstrated Russia's ability to swiftly deploy special forces, Airborne Troops, and naval infantry, and amass between 40,000 and 90,000 troops on the border as a credible deterrence for several months, Syria points to the ability to rapidly dispatch troops and hardware even far away from Russia's borders and conduct joint air and naval operations. However, these examples should not be taken as a *pars pro toto*. They involve the best trained troops of the armed forces. Structural weaknesses in regard to military education and the recruitment of professional soldiers still persist.

Professionalizing the Armed Forces

Since the objective of the military reform is to create combat ready armed forces equipped with modern weapons and well trained for complex operations, the role of professional soldiers has gained in significance. However, in contrast to many Western countries, Russia is striving for further professionalization without abolishing conscription.

On one hand, the reasons to adhere to conscription are rooted in insufficient financial means, tradition, and persisting concerns that a military conflict with a powerful opponent like NATO or China could easily escalate. Therefore, Russia`s armed forces uphold a target figure of 1 million soldiers. On the other hand, given problems in recruiting contract

⁷⁵ "The Military Balance 2015," p. 159. According to Minister of Defense Sergey Shoygu, in the winter training period (December 2014 to April 2015), the crews of surface ships spent 16 days and the submarine's crews spent 22 days on sea. *BBC Global Monitoring*, "Russian defence minister reports on nearly 900 drills held since December," May 5, 2015.

soldiers, Russia can approach this figure only by retaining conscription. Due to demographic shortfall, Russia faces serious difficulties in drafting the necessary amount of conscripts. From 2007 to 2017, the cohort of 18 years-old males will nearly be cut in half from 1.1 million to 630,000. Only after 2025 will the relevant age cohort start to increase again.⁷⁶ Taking into account that only a part of the group of draftees is fit for service and part of them try to dodge⁷⁷ explains why the Russian armed forces missed the target figure of 1 million soldiers by 20 percent in 2015.⁷⁸

Although conscription is necessary to uphold a target figure of the Russian armed forces above 500,000 soldiers, draftees can hardly contribute to increasing combat readiness. This is even truer since the length of compulsory military service was reduced from 24 to 12 months in January 2008, which results in insufficient time to train conscripts for complex operations.

To increase professionalization of the armed forces, Russia focuses on two paths. The first consists of strengthening the officers corps by reducing and restructuring it. Since the "skeleton" units were disbanded by 2009, the need to uphold an officer corps of 355,000 men disappeared. Russia consequently reduced the number of officers to 220,000 men, doubling the ratio of 1 officer to 2 soldiers to 1:4. The cuts affected the bloated senior officer's corps in particular, while emphasis was put on educating and training junior commanders. However, due to the shaky and unfinished restructuring of the military education system, there still is a shortage of junior officers.⁷⁹

Secondly, efforts to increase the number of contract soldiers (kontraktniki) were intensified. While in mid-2013, only 186,000 kontraktniki⁸⁰ served in the armed forces, the General Staff set a target figure of 425,000 by 2017, which means that Russian armed forces have to recruit 50,000 contract soldiers annually.⁸¹ Significant progress was reached in 2014, when 75,000 kontraktniki joined, enhancing the overall number to 295,000. For the first time, the number of contract soldiers exceeds the number of conscripts (276,000).82 Furthermore, while in 2007 only 15 percent of kontrakniki renewed their contract, many more do so now.83 These are the results of significantly increased pay mixed with a deteriorating economic situation and patriotic propaganda.

In consequence, the Russian armed forces are approaching a 2:1 ratio of professional soldiers officers and kontraktniki — to conscripts. This will enhance combat readiness substantially. However, Although conscription is necessary to uphold a target figure of the Russian armed forces above 500,000 soldiers, draftees can hardly contribute to increasing combat readiness.

⁷⁶ K. Giles, "Where Have All the Soldiers Gone? Russia`s Military Plan Versus Demographic Reality," Conflict Studies Research Center, October 2006, p.2, http://www.academia. edu/929850/Where_Have_All_the_Soldiers_Gone_Russias_ Military_Plans_Versus_Demographic_Reality; A. Lavrov, "Towards a Professional Army," *Moscow Defense Brief*, no. 4 (2015).

⁷⁷ According to Viktor Ozerov, chairman of the Federation Council's defense committee, in April 2015, 40 percent of conscripts were not fit for service. *BBC*, "Over 40 percent of conscripts unfit for military service," April 24, 2015. While, due to a shortage in the number of draftees, Russian armed forces called up even young men that previously were categorized as unfit for service, the number of draft dodgers decreased. A. Lavrov.

⁷⁸ According to the IISS Military Balance, in 2015, 798,000 soldiers were on active duty in the Russian armed forces. International Institute for Strategic Studies, "The Military Balance 2016: The Annual Assessment of Global Military Capabilities and Defence Economics," (London: IISS, 2016), p. 189. Anton Lavrov provides a much higher number for late 2014 stating that the armed forces were manned to 90.5 percent, which would mean 905,000 soldiers.

⁷⁹ E. Braw, "Russia's Conscription Conundrum: The Obstacles to Modernizing the Country's Armed Forces," *Foreign Affairs*, August 25, 2015, https://www.foreignaffairs.com/articles/russiafsu/2015-08-25/russias-conscription-conundrum.

⁸⁰ J. Hedenskog and C.V. Pallin, p. 39.

⁸¹ Ministry of Defence of the Russian Federation, "Contract service," http://eng.mil.ru/en/career/soldiering.htm.

⁸² A. Lavrov.

⁸³ Global Security, "Russian Military Personnel," http://www. globalsecurity.org/military/world/russia/personnel.htm; A. Lavrov.

The program to create a professional corps of noncommissioned officers, which forms the backbone of most Western armed forces, has largely failed.

there are still shortcomings, and the distribution of kontraktniki in the armed forces is quite diverse. The program to create a professional corps of non-commissioned officers, which forms the backbone of most Western armed forces, has largely failed. Instead of NCOs who passed an 18-month course, many of these posts are still filled with elder conscripts or junior officers.⁸⁴ Furthermore, most of the ground forces' regular units — in particular artillery and infantry units - continue to be staffed mainly with draftees, which restricts their capabilities for rapid deployment and complex operations.85 Hence, Russia's leadership clearly focuses on professionalizing elite forces - like Airbone Troops, Naval Infantry, and Special Forces - and units that depend on well-trained personnel like submarine crews or the Strategic Missile Forces. Here, more than 50 percent of servicemen are kontraktniki.86

Strengthening Elite Forces

This coincides with strong efforts to strengthen elite forces in particular. They form the core of Russia's ability for quick deployment abroad by being highly mobile and well-trained for special operations both in pre-war as well as in war settings — like reconnaissance behind enemy lines, supporting proxies, occupying critical infrastructure, and command centers.

The most important tool is the Airborne Troops (VDV). In contrast to the ground forces, aerospace forces and navy, they not only avoided manpower cuts but there are plans to more than double their number significantly, from 32,000 to 70,000 by

2019.87 This coincides with ideas to transform the VDV into broader rapid reaction forces that would encompass other elite forces, too. In line with that, the VDV enhance their spectrum of capabilities by building new reconnaissance battalions or a special peacekeeping force, and even plan to create special tank companies. These are indicators that in the future, the VDV shall increasingly perform conventional combat operations. The VDV enjoy priority in getting modern equipment and armament. For example, they are the first units to receive the new "Ratinik" battle dress or the automated command and control system "Andromeda." Besides, the VDV can rely on ten battalions that are fully staffed with professionals and therefore ready for deployment within short notice. The same is said to be true for the 5,000 man-strong peacekeeping force.88

Special operation forces, too, have been reinforced and increased their combat readiness. At minimum, the armed forces have seven regular "spetsnaz" brigades at their disposal. In addition, in 2013, a new Special Operations Command was founded that encompasses more than 1,000 servicemen. Besides, other ministries and agencies like the FSB and the Ministry of the Interior have special purpose forces, too, and since inter-agency cooperation has increased, they can support the elite forces of the regular armed forces.⁸⁹

⁸⁴ K. Giles and A. Monaghan, *Russian Military Transformation* — *Goal in Sight*?, (London: Strategic Studies Institute, 2014), p. 3, http://www.strategicstudiesinstitute.army.mil/pubs/display. cfm?pubID=1196.

⁸⁵ M. Barabanov, "Testing a 'New Look': Ukrainian Conflict and Military Reform in Russia," *Russia in Global Affairs*, December 18, 2014, http://eng.globalaffairs.ru/number/Testing-a-New-Look-17213.

⁸⁶ A. Lavrov; P. Baev, p. 8.

⁸⁷ A. Nikolsky, "Russian Speznaz Forces," *Moscow Defense Brief*, no. 1 (2014), p. 26.

⁸⁸ R. McDermott, "Russia Set to Strengthen Hard Power Option," *Eurasia Daily Monitor*, August 4, 2015; R. McDermott, "Russia Announces the Creation of Rapid Reaction Forces, Again," *Eurasia Daily Monitor*, June 9, 2015.

⁸⁹ M. Galeotti, Spetsnaz: Russia's Special Forces, (Oxford: Osprey Publishing, 2015).

4 REGIONAL PRIORITIES AND POWER PROJECTION CAPABILITIES

Ithough Russia's leadership perceives its country as a great power, its conventional power projection capabilities on the global stage are limited. While having land-, sea-, and air-based cruise missiles and missiles that can hit targets far from the homeland, Russia mostly lacks the means to sustain a military operation well beyond its borders: a blue water navy, aircraft carriers, sufficient transport aircraft, and forward bases. Symbolic demonstrations like port visits and flights of long-range bombers to Latin America or South Asia cannot compensate for a lack of substance.

However, in the recent years and months, the Russian armed forces strengthened their power projection capabilities in strategically important areas, like the Arctic and the eastern Mediterranean Sea and Levant. Although Russia's military presence on the Arctic is still very limited, it established two military post, conducted exercises, and in December 2014, created a special joint operational strategic command ("North").90 In the eastern Mediterranean Sea, since 2013 Russia has deployed a permanent flotilla of seven warships, which is on par with the 6th U.S. Navy that is operating there. Until September 2015, the naval base in Tartus, Syria, was the only military post that Russia operated outside of the post-Soviet space. Since September 2015, Russia has operated its first military airfield outside of the former Soviet space, near Latakia in Syria. These developments clearly demonstrate that Russia is enhancing its capabilities for limited military operations outside of the post-Soviet space.

Taking a closer look at the military districts' force structure reveals what contingencies Russia is planning for. In the Eastern Military District, Moscow is upholding and strengthening capabilities

to counter large-scale attacks and fight a regional war on its borders. Russia feels vulnerable to possible U.S., Chinese, and to a lesser degree North Korean air and space attacks as well as to a largescale land offensive by Beijing. Therefore, Russia emphasizes the modernization of its strategic nuclear arsenal, rejects any limitations to its tactical nuclear weapons, and enhances its capabilities for non-nuclear deterrence by strengthening strategic air defense in eastern Siberia and the Far East.⁹¹ Concerns in regard to China are the only logic for maintaining a capacity for major ground operations. Most of the brigades, reserve units, and artillery weapons are deployed in the east.92 Furthermore, the largest maneuver in post-Soviet times, officially with 160,000 servicemen, took place in the eastern parts of Russia in 2013. However, given the lack of a blue water navy and military bases abroad, Russia has only limited means for regional power projection beyond its sea and land borders in Asia. Recent attempts to fortify the Northern Kuril Islands will not change this picture. They are mainly to deny foreign military and commercial ships - often Chinese and Japanese — from entering the Sea of Okhotsk, which Russia claims as its territorial waters, and to underpin Russia's negotiation position vis-à-vis Japan in regard to the Kuril territorial conflict.93

⁹³ P. Globe, "Moscow Closes Okhotsk Sea to Outsiders," *Eurasia Daily Monitor*, April 29, 2014; A. Nikolsky, "Russia Says to Build Military Base on Contested Kuril Islands," *Reuters*, October 22, 2015, http://www.reuters.com/article/us-russia-japan-kuriles-idUSKCN0SG0X520151022; R.M. Gasanov, "Развитиу судостроения и Военно-Морского Флота Россия — важная составляющая обеспечения бесопасности страны" [The development of shipbuilding in the Navy of Russia — an important condition for protecting the country's security] Военная мысль [Military Thought], no. 2 (2011), p. 13-25.

Russia feels vulnerable to possible U.S., Chinese, and to a lesser degree North Korean air and space attacks as well as to a large-scale land offensive by Beijing.

⁹⁰ Stratfor, "Russia in the Arctic: A Different Kind of Military Presence," November 11, 2015, https://www.stratfor.com/analysis/russia-arctic-different-kind-military-presence.

⁹¹ In September 2015, the Pacific Fleet received the first "Borey" strategic submarine.

⁹² While all the other military districts have only two combinedarms armies at their disposal each, the Eastern Military District commands four armies. The number of standing brigades is much higher in the Eastern district (25) than in the Western (20), Central (18), and Southern (16) districts. J. Hedenskog and C.V. Pallin, p. 26.

The annexation of Crimea allowed Russia to modernize the Black Sea Fleet, which might shift the regional balance with NATO's southern members in Russia's favor.

After the Georgia war, Russia's military transformation strongly focused on the post-Soviet space where both hegemonic ambitions as well as actual security threats — like terrorism, ethnic and religious clashes, unresolved conflicts, and spill-over effects from Afghanistan and Syria - are most prevalent. This is reflected in prioritizing the Southern Military District, which encompasses the fragile North Caucasus and borders on the South Caucasus, Ukraine, and Kazakhstan, in regard to weapons modernization and professionalizing personnel.94 In regard to the Central Military District that adjoins the Central Asian countries, force structure and exercises are orientated on crisis management operations - unilaterally or multilaterally in the framework of the Collective Security Treaty Organization (CSTO).95 For this purpose, in 2009 CSTO founded the Collective Rapid Response Force (22,000 servicemen), followed in 2011 by the Collective Peacekeeping Forces (4,000). Since both structures rely heavily on Russian elite troops and command and control capabilities, they are essentially an instrument for Russia's hegemonic aspirations in the post-Soviet space that mainly provides a multilateral legitimacy for a possible intervention in one of its member states.96 To strengthen its capabilities for rapid military intervention, in previous years Russia reinforced existing and build new bases in the region, too. This is true in particular for facilities in Tajikistan (5,000 servicemen), Armenia (3,000 soldiers), and Abkhazia and

South Ossetia (7,000 soldiers). Moscow also has troops in Belarus, Kyrgyzstan, and Moldova.⁹⁷ The crucial role military bases can play in a military intervention was clearly demonstrated in the case of Russia's Black Sea Fleet in the course of Crimea's annexation.

Despite the strong focus on the post-Soviet space, an increasing reorientation to the Western theater can be observed since 2013 - when relations with Western countries and institutions sharply worsened. While from 2008 to 2010 the number of ground forces units were halved, in 2013 two army divisions were restored and by 2015 transferred into a new tank army, which increased the number of armies in the military district from two to three.98 In April 2015, the military leadership announced it was strengthening the Baltic Fleet stationed in Kaliningrad with a new motorized infantry brigade, several artillery units, and anti-ship weapons.⁹⁹ The annexation of Crimea allowed Russia to modernize the Black Sea Fleet, which might shift the regional balance with NATO's southern members in Russia's favor. Besides the Southern Military District, the Western gets priority in modernizing weapons and equipment. This applies in particular to new tanks ("Armata") and infantry fighting vehicles ("Kurganets"), short-range missiles ("Iskander"), and advanced air and missile defense systems ("S-400," "S-500"), as well as combat aircraft. Furthermore, large-scale military maneuvers in the Western Military District ("Zapad 2009," "Zapad 2014") exercised attacks on Poland, the Baltic States, and Finland with the involvement of simulated nuclear attacks.¹⁰⁰ Together with the recreation of divisions instead of the usual brigades, this indicates Russia's efforts to enhance capabilities

¹⁰⁰ J. Norberg.

⁹⁴ K. Giles and A. Monaghan, p. 26.

⁹⁵ The Collective Security Treaty Organization comprises Russia, Belarus, Armenia, Kazakhstan, Kyrgystan, and Tajikistan. It provides collective defense in case of external aggression, but also at the request of the "legitimate government" of a participating state, might intervene in order to help "restore constitutional order."

⁹⁶ Collective Security Treaty Organization, "Basic Facts," http:// www.odkb.gov.ru/start/index_aengl.htm; R. McDermott, "Russia Rehearses Military Intervention in Central Asia," *Eurasia Daily Monitor*, July 1, 2014.

⁹⁷ "The Military Balance 2015," p. 197-198.

⁹⁸ M. Barabanov, 2014.

⁹⁹ A. Nikolsky, "Arming the Exclave," Vedomosti, April 27, 2015,

p. 3.

for conventional inter-state war on its Western borders. In addition, Moscow upholds strong assets with two airborne divisions, one air assault division and several special forces units for nonlinear warfare operations and surprise attacks in the Western Military District. By modernizing both the Baltic as well as the Black Sea Fleet and fortifying Crimea, Russia strengthens its capabilities for antiaccess/area-denial operations in both theaters.¹⁰¹

¹⁰¹ S. Blank, "Russia's New Maritime Doctrine," *Eurasia Daily Monitor*, August 11, 2015.

IMPLICATIONS FOR WESTERN POLICY

The weaker the other instruments of influence — like economic or soft power — become, the stronger the incentives to resort to show of force or even use military power to underpin Moscow's interests.

ince Russia started its military reform in October 2008, it has achieved substantial progress — both in regard to weapons modernization as well as to combat readiness. Still, there are obstacles that put limits on Russian ambitions. First, the defense industry struggles to meet the production targets in regard to numbers, quality, and schedule. Specific setbacks have resulted from Western sanctions and the breaking off of ties with the Ukrainian defense industry. However, since the Russian leadership puts a lot of money into the defense industry, which it wants to turn into a motor for broader economic modernization, the defense-industrial complex may at least overcome part of its problems and become more self-sufficient. Second, demographic shortages will restrict the military's ambitions to both meet the target number of 1 million soldiers as well as to increase professionalization further

- from 300,000 kontraktniki in 2015 to 425,000 in 2017. However, given the economic crisis in Russia — coupled with patriotic propaganda efforts — Russian armed forces might find enough personnel to uphold or even slightly increase the achievements of the past years. The biggest challenge, though, is in the ability to sustain military modernization with the necessary financial means. Although the defense budget has steadily been increased and accompanied by additional means for procurement, the broader economic context is increasingly grim. While the draft budget for 2016 is based on an oil price of \$50, the real figure dropped to \$40 and might even fall further. Because a large part of the state reserve fund has already been consumed since the economic crisis began, military modernization goals can only be achieved if the Russian leadership is willing to save expenses in other areas. This seems to be seen in the 2016 budget draft, which includes reductions for health care and education while military spending, with a share of 20 percent of the overall budget, comes in second place behind expenditures

on pensions.¹⁰² When the state reserve fund is exhausted, Moscow's leadership will be struck with an even tougher conflict of aims.

However, even if Russia's military modernization will not proceed much further, it has already managed to turn the old, cumbersome mass mobilization army into armed forces that are better trained and equipped and has a core group of highly deployable elite forces at its disposal. This presents a number of challenges for NATO.

The first challenge results from the growing role of military means in Russia's foreign policy in general. The weaker the other instruments of influence like economic or soft power — become, the stronger the incentives to resort to show of force or even use military power to underpin Moscow's interests. Moscow's intervention in Ukraine and Syria, as well as its sabre rattling in regard to Turkey, somewhat fall into this pattern. Military adventurism might also be driven by purely domestic reasons. Since Putin's main source of legitimacy — economic success — is eroding, demonstrations of military might and a narrative of defending an encircled Russia serve to rally the population behind the leadership. Evidence of this is in rising approval rates for Putin during the course of the Ukraine and Syria crises.

This leads directly to the second challenge. Military provocations, shows of force like flying near NATO's airspace, and verbal threats to use nuclear weapons increase the danger of an unintended military escalation. Since confidencebuilding measures and arms control regimes have been eroded, the usual means for preventing or containing such scenarios are lacking.

Third, Russia's increased military capabilities pose specific risks to NATO. This is true for possible

¹⁰² B. Triebe, "Treffer und versenkt" [Hit and Sunk], *Neue Züricher Zeitung*, December 9, 2015, p. 36.

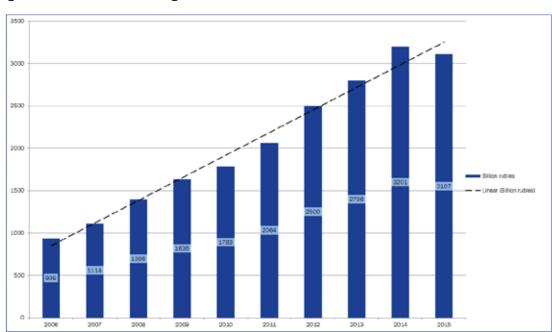


Figure 3: Russian Defense Budget 2006-2015¹

¹2006-2014 data: Stockholm International Peace Research Institute (SIPRI), "SIPRI Military Expenditure Database," http:// www.sipri.org/research/armaments/milex/milex_database; 2015 data: J. Cooper, "Military expenditure in the Russian Ministry of Finance's new 'Basic Directions of Budget Policy for 2016 and the Planned Period 2017 and 2018'; A Research Note," SIPRI, http://www.sipri.org/research/armaments/milex/publications/unpubl_milex/military-expenditure-in-the-russian-ministry-offinances-new-basic-directions-of-budget-policy-for-2016-and-the-planned-period-2017-and-2018-research-note-july-2015.

non-linear warfare operations in particular in the Baltic States where Moscow might use nonmilitary instruments together with covert actions of special forces and local proxies. Furthermore, although Russia's armament is inferior to NATO's in quantitative and qualitative terms, in a conventional warfare scenario, it has four main advantages: geographic proximity to the Baltic theater, a higher combat readiness than most of at least European NATO armed forces, the ability to quickly reinforce troops from other military districts, and a rapid decision-making process.¹⁰³ Furthermore, Russia could compensate for its military disadvantages with asymmetric actions — a quick surprise attack to create facts on the ground coupled with an anti-area/access-denial operation in the Baltic Sea.

NATO has to react to these challenges with a double-pillared strategy. The first pillar consists of military reassurance measures for its eastern and southern members. The NATO Readiness Action Plan of September 2014 contains increased exercises, enhancing the NATO Response Force and creating a new Very High Readiness Joint Task Force to be deployable within 48 hours as well as establishing joint headquarters.¹⁰⁴ The Alliance's Warsaw Summit will decide whether the restriction of the NATO-Russia Founding Act of 1997 to not deploy substantial combat forces

¹⁰⁴NATO, "Readiness Action Plan," http://www.nato.int/cps/en/ natohq/topics_119353.htm.

¹⁰³ G. Gressel.

This should not be misconceived as an attempt to return to "business as usual" anytime soon...Insufficient transparency and communication channels only aggravate the dangers. To reduce the risk of unintended military escalation, NATO and Russia should agree on rules of behavior for the safety of air and maritime encounters.

in the new member states on a permanent basis will be upheld. In order to not formally bury this concession, NATO could decide to increase the number of its soldiers there but on a rotational basis, and in addition, strengthen logistics and military infrastructure to allow a quick reaction. Further emphasis should be placed on reducing the Alliance's "soft" disadvantages: members have to substantially invest in strategic planning and agree beforehand on how to react to different contingencies in order to avoid time-consuming decision-making processes in immediate crisis situations. Only then will its 28 members be able to send a clear signal of collective defense to Russia. In addition, NATO member states have to reduce domestic vulnerabilities that Russian non-linear warfare could exploit. Consequently, efforts to better integrate Russian-speaking minorities have to be accompanied by significantly modernizing border guards and strengthening the capabilities of police special forces to handle possible externally instigated local unrests ("Crimea scenario"). In the information sphere, capabilities for countering cyber-attacks need to be reinforced and societies have to become sensitized to how Russian propaganda works. When it comes to these soft areas as well as to crisis management scenarios, the EU has to become more actively engaged.

The second pillar of NATO's reaction to Russia's military modernization should consist of dialogue and trust-building measures. This should not be misconceived as an attempt to return to "business as usual" anytime soon. However, insufficient transparency and communication channels only aggravate the dangers. To reduce the risk of unintended military escalation, NATO and Russia should agree on rules of behavior for the safety of air and maritime encounters. Furthermore, the Vienna Document has to be strengthened. However, it is not sufficient to compensate for the Treaty on Conventional Armed Forces in Europe,

from which Russia withdrew in March 2015. Besides transparency measures, the CFE Treaty contained ceilings for specific weapons and an elaborated verification regime.¹⁰⁵ Although there is currently no serious interest in the Russian leadership to engage in negotiations for a new arms control regime, NATO members should work in the OSCE framework on its own proposals to secure an agenda-setting advantage when Russia might be interested again. Such a new arms control regime has to be adapted to the new circumstances: Since Russia used military exercises on the border to cover preparations for warfare, the numeric ceilings for exercises have to be lowered and the transparency role of observers has to be strengthened. Given the crucial role of inter-agency cooperation in non-linear warfare scenarios, a new arms control regime should not only encompass purely military maneuvers of the regular armed forces but exercises of other armed forces, too like troops of the interior.

However, the biggest danger for military escalation is to be found in the post-Soviet space. Given security problems that might arise in the future — Islamic terrorism and state failure in Central Asia or local conflicts — Russia will be determined to reinforce its self-image of a great power and intervene militarily. If such an operation were legitimized by CSTO — a collective defense alliance of several post-Soviet states under Russian leadership — Russia will not find much resistance from Western countries and, in the case of an increasingly fragile Central Asia, might be even welcomed as a security provider. The real threat derives from Russia's hegemonic ambitions. In order to prevent post-Soviet countries from

¹⁰⁵ The Adapted CFE Treaty was signed in 1999 and ratified by Russia in 2000. Since Russia did not withdraw its armed forces from Georgia and Moldova as it committed itself in the annex of the new treaty, NATO members refused to ratify. In consequence, Russia suspended its participation in the CFE Treaty in 2007 and withdrew in 2015.

engaging with and gradually become integrated into the Western sphere, Moscow might be tempted to use military means again. Moldova, Georgia, and Ukraine are the most vulnerable countries to non-linear warfare. To support these countries, some NATO members push for accelerated NATO membership for Georgia and Ukraine. However, there are two dilemmas: Firstly, accepting Georgia and Ukraine as members when they have not yet fulfilled the criteria might undermine NATO's credibility as an alliance of norms and would support the Russian narrative that NATO is just a geopolitical instrument to contain Russia. Secondly, even if Georgia and Ukraine fulfill the criteria, there would arise a critical time frame in-between the granting of a membership action plan and actual membership. During this period, Russia might be tempted to use non-military and military power to destabilize these countries and their societies. NATO would then have to make a critical choice: 1) apply Article 5 although

Georgia and Ukraine would not yet be formally members of NATO and thereby risk direct military confrontation with Russia, or 2) not resort to collective defense, undermining NATO's credibility as an effective alliance for collective defense. Against this background and given the fact that Russian non-linear warfare is not so much directed at winning wars but at undermining societies and political systems, Western strategy should focus more on strengthening the resilience of post-Soviet countries. Creating effective border guards and special police forces as well as combating domestic corruption and modernizing the economy are crucial elements. Therefore, a transatlantic response to Russia's military modernization should not be limited to military reassurance but encompass diplomatic initiatives for rebuilding trust and predictability in the Euroatlantic region and a broad investment in strengthening the resilience of post-Soviet states and societies.

Given the fact that Russian non-linear warfare is not so much directed at winning wars but at undermining societies and political systems, Western strategy should focus more on strengthening the resilience of post-Soviet countries.



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