

SWP Research Paper

Stiftung Wissenschaft und Politik
German Institute for International
and Security Affairs

Margarete Klein

Russia's Military Capabilities

“Great Power” Ambitions and Reality

RP 12
October 2009
Berlin

All rights reserved.

© Stiftung Wissenschaft
und Politik, 2009

This Research Paper reflects
solely the author's views.

SWP
Stiftung Wissenschaft
und Politik
German Institute
for International
and Security Affairs

Ludwigkirchplatz 3-4
10719 Berlin
Germany
Phone +49 30 880 07-0
Fax +49 30 880 07-100
www.swp-berlin.org
swp@swp-berlin.org

ISSN 1863-1053

Translation by Hannes Adomeit

(English version of
SWP-Studie 24/2009)

Table of Contents

5	Problems and Conclusions
7	“Great Power” Ambitions and Military Capabilities
9	Conventional Forces
9	Critical Condition of the Equipment
10	<i>The Ground Forces</i>
11	<i>The Air Force</i>
12	<i>The Navy</i>
13	<i>Lessons of the War in Georgia: Russia’s Lacking Capabilities for Network-Centric Operations</i>
14	The New Face of the Armed Forces: From Mass Mobilization Army to Combat-Ready Forces
14	<i>Changes in Organizational Structure and Force Employment Concepts</i>
16	<i>Improvements in Training</i>
16	<i>Efforts to Create Professional Armed Forces</i>
17	<i>Problems and Reforms of Leadership</i>
18	Capabilities for Power Projection with Conventional Forces: Russia as a Regional Power
21	Russia’s Nuclear Capabilities
21	“Great Power” Attribute and Instrument of Deterrence
22	Contraction and Modernization of Nuclear Capabilities
25	<i>Early Warning System – With Holes</i>
26	Determinants for the Development of Russian Military Capabilities
26	Economic Factors
28	Demographic Determinants
29	Stagnation and Decay of the Military Industry
29	Unclear Demand Profile
32	Conclusions
34	List of Abbreviations

*Dr. Margarete Klein is researcher at SWP's
Russian Federation/CIS Division*

**Russia's Military Capabilities.
"Great Power" Ambitions and Reality**

After president Vladimir Putin's accession to power, Russia began to conduct a more self confident foreign policy. After years of decline, the country again considers itself to be a "Great Power" and demands a special role in the international system. In order to underpin this demand, Moscow points to its status as a permanent member in the UN Security Council, its huge energy resources and, increasingly after Putin's second term in office from 2004–2008, its military capabilities.

The stronger emphasis on military power manifests itself, for instance, in its public demonstration such as the renewal of military parades in 2008. The threat of the use of military power in foreign policy has again become part of Russia's political discourse. At the February 2007 Munich International Security Conference, for example, Putin warned of a new arms race if the United States were not to abandon its plans for the deployment of components of its national strategic missile defense system in East-Central Europe. Another part of Moscow's threat posture has been the "moratorium" on the implementation of the treaty on conventional forces in Europe (CFE) in December 2007, a measure that theoretically allows Russia to station an unlimited number of forces in its European territory. In August 2008, Russia went one step further when, for the first time since the collapse of the Soviet Union, Moscow used armed force in the war against Georgia in order to assert its claim to pre-eminence in the region.

In view of Moscow's more resolute foreign policy backed by military muscle, it is becoming ever more important for German and Western policy correctly to assess Russian military power and potential. In order to be able adequately to react to the Kremlin's threat posture, the skilful stage-management of military capabilities has to be separated from its substance. Questions have to be asked as to whether the Russian armed forces have passed through the trough of their decline in the 1990s and are now reliably supporting the "Great Power" claims of the country. In order to provide answers, Russia's military potential will be analyzed on the basis of the criteria that are generally used to assess "great power" status. Will Russia's nuclear potential most likely suffice to

safeguard the country's deterrence capability? Do Russia's conventional armed forces have enough modern weapons to fulfil the tasks assigned to them? How well trained and led are the soldiers so that high combat readiness can be guaranteed? Is Russia capable of global or only of regional power projection? What are the chances that the modernization programs and the military reform efforts begun after the war in Georgia can and will be implemented?

Russia's nuclear capabilities can be said to constitute the country's only effective military pillar of the "Great Power" claim. Although the strategic arsenal will shrink substantially after 2015 because it is over-aged, Russia will nevertheless remain more or less on a par with the United States if modernization projects were to be carried out successfully and lower ceilings to be codified in a new arms control agreement. If its efforts were to fail, Moscow could lose military-strategic parity with the United States. Its deterrence capability against big conventional attacks, however, would continue to be effective.

The state of affairs is different in the conventional sphere. Russia inherited from the Soviet Union a big conventional arsenal but only ten percent of the weapons are properly maintained or can still be used. Successful modernization has been carried out only in individual cases and is by no means sufficient to meet demand. The Russian armed forces have failed to make a successful transition from an army of the industrial age to one of the information age.

Increased defense expenditures have thus far not led to improved combat readiness of the conventional armed forces. The level of training of the soldiers continues to be poor; the ability of the bloated officers' corps to lead troops in combat is limited; and the organizational structure of the army is still oriented towards a big land war. The military reforms announced in autumn 2008 are designed to alter that state of affairs. The cumbersome divisions are to be replaced by more mobile brigades, the officers' corps is to be radically cut, the proportion of non-commissioned officers is to be increased and the troops to be equipped with more modern weapons.

If the reforms were to be implemented, the combat readiness of the armed forces in local and regional conflicts, anti-terror operations and the struggle against insurrections at Russia's vulnerable southern borders would be enhanced. This could also serve for Russia to improve its military dominance on the territory of the Commonwealth of Independent States (CIS). Europe, for that reason, should have an interest

in reinvigorating conventional arms control. The war in Georgia, after all, demonstrated how quickly local conflicts can escalate to an international crisis.

Implementation of the reform efforts, however, would neither substantially change the qualitative and quantitative superiority of NATO nor would it alter Russia's lack of capabilities for global power projection. Moscow's threat posture *vis-à-vis* the West is primarily stage-management so as to lend credence to its "Great Power" status and claims, and to the extent possible to extract political concessions from the NATO countries.

What are the development perspectives for the Russian military capabilities? The enormous demand for modernization can only be met if the army were to be reduced significantly and the defense budget to be increased substantially. Given the resistance by the military leadership, the former appears hardly likely to come about, and the latter, especially under the current conditions of economic crisis, is also unlikely to materialize because it could jeopardize socio-economic modernization projects. Threat postures, therefore, have a more demonstrative and symbolic quality rather than constituting realistic scenarios. This is even more valid since the defense industry is hardly in a position to produce the modern weapons needed.

Against this background, the future of the modernization programs depends above all on the ability of the military leadership to develop a clear demand profile for the Russian armed forces that would correspond to the country's security requirements and available resources. It is only when this demand has been met that the limited financial means can be used efficiently. This, however, has not yet happened. Whereas the military reforms are oriented towards the creation of mobile forces capable of rapid action or reaction at the country's troubled southern borders, many military leaders still would like to maintain a large army based on the principle of mobilization. Since, furthermore, the aim of safeguarding nuclear parity with the United States primarily serves considerations of prestige rather than actual security requirements, the political leadership's "Great Power" ambitions are an obstacle to the development of clear priorities in military affairs. For as long as these fundamental problems have not been solved, the current efforts at military reform, as previous ones, are likely to come to a deadlock. The gap between great power pretensions and reality in military affairs would continue to grow.

“Great Power” Ambitions and Military Capabilities

Russia’s self-perception is that of a great power. Corresponding proof is furnished not only by statements of the political and military leadership and in official documents but also by public opinion polls. Thus, shortly after his ascent to power in June 2000, president Putin declared that Russia did not aspire to the status of a global power, it already was a global power.¹ The two basic documents on Russia’s foreign and security policy signed by president Medvedev, the Foreign Policy Concept of July 12, 2008, and the Strategy of National Security of the Russian Federation Until 2020 of May 12, 2009, define Russia as a rising international actor.² Polls conducted by the independent Levada Center underline how strongly this understanding of Russia’s role in international affairs is rooted in public opinion. In response to the question as to what they most strongly wanted the incoming president to achieve, 55% of the respondents in 2000, and 51% in 2008, replied that they hoped the new president would restore Russia to the status of “respected Great Power.”³

So as to justify the claim to Great Power status, the country’s leadership points to Russia’s position as the state with the largest geographical extent, its vast energy resources and its status as permanent member of the UN Security Council. Starting from the turn to the new millennium, however, military capabilities have increasingly been added to that list of Great Power attributes. In the 1990s, the Russian armed forces had experienced serious decay. To some extent during Putin’s first term in office (2000–2004) but increasingly so during his second term (2004–2008),

he conveyed the image that the country had achieved a military renaissance. “The state of affairs in the armed forces has dramatically improved,” he declared in his annual address to the Federal Assembly on May, 10, 2006.⁴ Dmitri Medvedev, his successor, confirmed this assessment by claiming after the war in Georgia that the armed forces had “overcome the crisis of the 1990s.”⁵ The stronger emphasis on military factors in the Russian foreign and security discourse can also be observed in the many symbolic gestures and demonstrations which, moreover, quite consciously link up with the Soviet past. Thus, for instance, only two days after his inauguration as president, Medvedev oversaw the first military parade on Red Square after the collapse of the USSR. The resumption of long-range patrol flights of strategic bombers over Atlantic and Pacific areas in August 2007 and the dispatch of a naval detachment to Latin America in autumn 2008, too, were obviously designed to demonstrate that the Russia armed forces had either never lost or regained the capability for global power projection.

The defense ministry’s white book of 2003 also explicitly posits Great Power status as a goal.⁶ The question needs to be asked, however, whether the Russian armed forces have, in fact, achieved that status. In the scientific discourse, three criteria for such a status in the military realm have been distinguished.⁷

1 As quoted by Kai Diekmann, “Russland ist immer noch eine Weltmacht,” *Welt am Sonntag*, June 11, 2000.

2 “The Foreign Policy Concept of the Russian Federation, President of Russia”, www.kremlin.ru/eng/text/docs/2008/07/204750.shtml; “Strategiia natsional’noi bezopasnosti Rossiiskoi Federatsii do 2020 goda” [Strategy of National Security of the Russian Federation Until 2020], Security Council of the Russian Federation, May 12, 2009, www.scrf.gov.ru/documents/99.html.

3 “Voting Behaviour – Presidency – Trends,” Centre for the Study of Public Policy, University of Aberdeen, January 22, 2009, www.russiavotes.org/president/presidency_vote_trends.php?5776173303132=5e84e27dbc0e59cad1c03b3335181849.

4 Vladimir Putin, “Annual Address to the Federal Assembly Strategic,” Official website of the Kremlin, May 5, 2006, www.kremlin.ru/eng/speeches/2006/05/10/1823_type70029type82912_105566.shtml.

5 “Vstrecha c voennosluzhashchimi, otlichivshimisia v boiach v zone gruzinsko-iuzhnoosetinskogo konflikta” [Meeting with Military Service Personnel That Distinguished Itself during Combat in the Zone of the Georgian-South Ossetian Conflict], Official website of the Kremlin, August 18, 2008, www.kremlin.ru/appears/2008/08/18/2240_type63376type63381_205477.shtml.

6 *The Priority Tasks of the Development of the Armed Forces of the Russian Federation. The Report of the Defence Ministry of the Russian Federation* (Moscow, 2004), p. 15.

7 The criteria used here were formulated by reference to John Mearsheimer, *The Tragedy of Great Power Politics* (New York, 2001).

- ▶ The first criterion named is that of possession of a nuclear weapons arsenal with the assured capability for a nuclear second strike. Its purpose, among others, is deterrence not only of a nuclear strike but also of a large-scale conventional attack.
- ▶ A second criterion are conventional armed forces powerful enough to have an even chance to emerge victorious in a military conflict with the strongest existing power. Analytically, this makes it necessary to examine not only the weaponry and equipment of the armed forces in terms of quantity but also in terms of quality, that is, the degree of modernization of the army.⁸ This, above all, concerns the problem as to whether its armaments reflect the most important advances in military high technology. Weapons systems have to be operated. It is, therefore, necessary, in addition to military hardware to examine also the level of education and training of the soldiers as well as the leadership qualities of their officers.
- ▶ Third, in contrast to regional powers, Great Powers are characterized by their potential for global power projection. They must be able to operate militarily and influence developments not only in their immediate neighborhood but also on a world-wide scale. This requires long-range weapons and delivery systems, logistical capabilities and military bases abroad.

There is broad agreement among academic specialists that Great Power status must be measured not only in terms of military capabilities but also in terms of economic resources, the attractiveness of one's own culture and value system (“soft power”) as well as the will and the ability to shape basic principles of global political and socio-economic order.⁹ This study, therefore, does not aim at answering the more general question as to whether Russia should be considered a Great Power but whether its *military* resources meet the requirements of such a definition. Finally, since the utilization of resources and the achievement of results always depend on the specific conditions, including alliance relations as well as strategy, tactics

and resolve of the adversary, the analysis of military capabilities *per se* should not be taken as predetermining conclusions about the likely outcome of a possible military conflict.

⁸ Depending on the context, hereafter the Russian term of “Army” (*armii*) will refer not only to “ground forces” but also to “armed forces” in general.

⁹ See Barry Buzan and Ole Wæver, *Regions and Powers. The Structure of International Security* (Cambridge, UK, 2003); Paul Kennedy, *The Rise and Fall of the Great Powers* (New York, 1987); Mearsheimer, *The Tragedy of Great Power Politics* [op. cit., fn. 7]; Joseph S. Nye, *Soft Power. The Means to Success in World Politics* (New York, 2004).

Conventional Forces

In the 1990s, Russia's conventional armed forces went through a phase of serious decay. Although they had inherited the main bulk of the Soviet weapons stock, due to the disastrous economic and financial condition of the country, they were unable to purchase modern weapons, and the existing arms deteriorated because of inadequate servicing. Operational readiness and morale of the troops sank to an all-time low also because the financial means were lacking for training, military exercises and the payment of salaries on time.

The decline of the conventional armed forces was due also to the fact that attempts at reform of the army, aimed at reducing the size of the armed forces and their professionalization and modernization, had faltered as a result of resistance by the military leadership as well as lacking consensus and political will of the political leadership.¹⁰

Other reform attempts sought to adapt the Russian armed forces to the changed security environment after the end of the Cold War. At the beginning of the 1990s, the probability of military conflict with NATO had declined and new local, regional and asymmetric threats, notably at the southern borders of the country, had emerged. These have included ethno-territorial and inter-state conflicts on post-Soviet geographic space and separatist, fundamentalist religious and terrorist movements in Central Asia and the Northern Caucasus, with Chechnya as its epicenter. If power is to be projected under these conditions, preparations need to be made for military operations other than the employment of large conventional forces for big land battles with extended front lines so characteristic, for instance, of World War I and World War II. Smaller, more mobile, and well trained and equipped forces are required for anti-terror struggles, the suppression of insurrections, and peacekeeping and peace enforcement operations. Pressures for professionalization and modernization are generated also by the

¹⁰ See Alexander M. Golts and Tonya L. Putnam, "State Militarism and Its Legacies. Why Military Reform Has Failed in Russia," *International Security*, Vol. 29, No. 2 (2004), pp. 121–158; Hannes Adomeit, *Putins Militärpolitik*, Berlin: Stiftung Wissenschaft und Politik, SWP-Studie, No. 16 (April 2003).

qualitative leaps performed by the United States defense industry.

Increases in the defense budget occurred only at the turn of the century as a result of the significant price rises of oil and gas. As a result, armament projects that had been shelved at the beginning of the 1990s were resumed and new ones started. The war in Georgia, moreover, acted as a catalyst for relaunching army reforms. These developments raise the question as to whether the increased financial allocations and new reform efforts have meant that the conventional armed forces have now passed through the trough of the 1990s and acquired a new quality.

Critical Condition of the Equipment

Russia's conventional armed forces may possess an impressive arsenal quantitatively. The major part of the weaponry, however, is obsolete and badly serviced. In March 2009, defense minister Anatoly Serdyukov estimated the share of modern weapons to be only about 10%.¹¹ In 2003, his predecessor still had provided a figure of 15%.¹² This shows that the equipment of the armed forces has improved very little despite the increased defense expenditures since the year 2000. Some success in modernization has been achieved but this is limited to individual cases and is insufficient overall to cover the requirements of the conventional armed forces. Against this background, skepticism is warranted concerning Serdyukov's announcement of March 2009 that, in the framework of the current military reform effort, the share of modern weapons in the total weapons stock is to rise to 15% until 2015 and to 30% until 2020.¹³

¹¹ "Dolia sovremennykh vooruzhenii rossiiskoi armii sostavliaet okolo 10 protsentov" [The Share of Modern Weapons in the Russian Armed Forces Constitutes Approximately Ten Percent], Defense Ministry of the Russian Federation, Press Release, March 17, 2009, www.mil.ru/info/1069/details/index.shtml?id=60116.

¹² Seth Mydans, "Russia: Concerns over Combat Readiness," *New York Times*, November 19, 2003.

¹³ "K 2020 g. rossiiskaja armia na 70 protsentov budet obespechena sovremennymi obrastami vooruzhenii i tekhniki"

Table 1
Stock of Selected Weapons Systems in International Comparison

	Battle tanks (operational and in storage)	Combat aircraft	Big surface ships	Tactical submarines
Germany	2,035	298	18	12
USA	8,023	4,293	107	57
China	7,660	1,943	78	62
Russia	23,860	1,988	61	52

Source: The author's own compilation based on data of the International Institute for Strategic Studies (IISS), *Military Balance 2009. Annual Assessment of Global Military Capabilities and Defence Economics* (London, 2009).

Such goals could only be reached with a massive increase in defense spending or drastic cuts in the strength of the armed forces. This can be demonstrated by focussing on the three armed services, the ground forces, the air force and the navy.

The Ground Forces

As a result of Moscow's traditional orientation towards a large-scale land war, its ground forces still possess one of the biggest arsenals in the world. For instance, they own 23,860 battle tanks, that is, more than all the NATO countries put together. The vast majority of the tanks, however, i.e. about 80% of the total, were built in the 1960s and 1970s (T-55, T-64 and T-72 models). For the most part, the remaining 20% form part of the T-80 series commissioned in the late 1970s. As for the most modern of the Russian tanks, the T-90, which went into production in 1993, Russia's ground forces only own between 250 and 300 pieces.¹⁴ Thus, in order to modernize the current arsenal up to 70% of the stock until the year 2020, annually more than 1,000 tanks would have to be added. This is hardly likely to happen given the fact that between 2004 and 2008 the ground forces had purchased only 149 T-90s.¹⁵ The planned level of modernization could,

therefore, only be achieved if the number of tanks in the ground forces' arsenal were to be substantially reduced. This, indeed, is the direction which the current military reform effort appears to be taking. According to Russian press reports, in the coming decade the army plans to reduce the number of battle tanks by three quarters to about 6,000 tanks, 2,000 of which to be kept ready for combat.¹⁶ However, if the objective that 70% of the 2,000 tanks are to consist of new or rebuilt models by 2020 is to be met, the current production rate would have to be increased.

Although the state of affairs is somewhat better in other arms categories, the modernization requirements there are, nevertheless, also considerable. Thus, for example, concerning short and medium range air defense systems, the ground forces have at their disposal the Tor (SA-15) and Buk (SA-11) systems, which are quite effective.¹⁷ Similarly, the long-range S-400 Triumf (SA-21) in the ground forces' arsenal can be considered the most modern air defense missile system world-wide, clearly superior to that of the U.S. Patriot missiles.¹⁸ Such indisputable modernization achievements, however, cannot conceal the fact that re-equipment of the ground forces with new systems has by no means been completed. For example, until May 2009 only two regiments of the forces had been furnished with the S-400 weapon.¹⁹

[By the Year 2020 the Russian Armed Forces Will Be Furnished with Modern Weapons Systems und Technology], Defense Ministry of the Russian Federation, Press Release, March 17, 2009, www.mil.ru/info/1069/details/index.shtml?id=60117.

¹⁴ This applies similarly to 15,140 Russian armoured personnel carriers; International Institute for Strategic Studies (IISS), *Military Balance 2009. Annual Assessment of Global Military Capabilities and Defence Economics* (London, 2009), p. 218.

¹⁵ Mikhail Barabanov, "Russian Tank Production Sets a New Record," *Moscow Defence Brief*, Vol. 16, No. 2 (2009), <http://mdb.cast.ru/mdb/2-2009/item4/article1/>.

¹⁶ Ilya Kramnik, "Tank Force Reductions or Statistical Juggling," *RIA Novosti*, July 3, 2009, <http://en.rian.ru/analysis/20090703/155424380-print.html>.

¹⁷ Where available, NATO classifications for Russian weapons systems will be provided in parenthesis.

¹⁸ See Ivan Konovalov, "Towards the Restoration of Russian Air Power," *Moscow Defence Brief*, Vol. 11, No. 1 (2008), <http://mdb.cast.ru/mdb/1-2008/item2/article3/>.

¹⁹ The State Armament Program for the Period 2007–2015 envisages the equipment of 18 regiments with the new S-400 systems; "Second S-400 Air Defense Regiment Put into Service

The Air Force

The majority of combat aircraft is outdated or are badly serviced. The state of affairs concerning the MiG-29 is one of the proofs for that. In October and December 2008, two of this type of aircraft crashed because of metal corrosion. All of the MiG-29s, therefore, were checked for air worthiness. The result was that 70% of the fleet were found not to be operational. Even relatively new aircraft with less than 150 hours flying hours were judged not to be airworthy – a fact that can only be explained by bad servicing or design faults.²⁰

Since the turn of the century, the air force has embarked on modernization efforts. Thus, there are programs for almost all types of aircraft to equip them with new avionics and precision weapons. The military-industrial complex, furthermore, is developing new types of aircraft. Should these programs be implemented, they could markedly improve the air force's capability to conduct special operations in anti-terror combat or in inter-state conflicts near Russia's borders.

As with the ground forces, the planned modernization projects in the air force can only be carried out slowly. Thus, for instance, the forces only possess very few of the new Su-34 fighter aircraft, and when or whether the Su-35, MiG-35 or T-50 will be built is uncertain.²¹ At the beginning of 2009, for example, only about 6% of the 1,743 combat aircraft in the air force had been substantially re-equipped or were new. The overwhelming majority of the aircraft has remained essentially unchanged and, therefore, is inoperable at night or in bad weather conditions, or cannot carry precision weapons. In order to equip 70% of the air force with more effective systems by 2020, annually about 95 planes would have to be modernized or newly purchased. However, the armaments program 2007–2015 only provides for 116 new combat aircraft. If this rate of replacement were to be maintained, the planned re-equipment of the air force would take more than 70 years. In the medium term, then, in the

air force, too, incomplete modernization coupled with contraction of the size of the forces is to be expected.²²

Table 2
Modernization Programs of Selected Combat Aircraft

Type	Modernized versions	Number of planes
Su-24		550
	Su-24M2	7
Su-25		241
	Su-25SM	6
Su-27		281
	Su-27SM	18
	Su-27SMK	40
MiG-29		266
	MiG-29SMT	28
	MiG-29UBT	6
Su-34		3–19
Su-35		test phase (serial production planned for 2011)
MiG-35		under development
T-50		under development

Source: The author's own compilation based on data of the International Institute for Strategic Studies (IISS), *Military Balance 2009. Annual Assessment of Global Military Capabilities and Defence Economics* (London, 2009); "Russia to Keep Upgraded Su-25 Strike Aircraft until 2020," *RIA Novosti*, October 20, 2008, <http://en.rian.ru/russia/20081020/117836190.html>; Dmitrij Litovkin, "Armia poluchit novoe oruzhie" [The Armed Forces Receive New Weapons], *Izvestiia*, March 30, 2009; Ivan Konovalov, "Alzhirskie 'MiG' vernulis' v rossijskie VVS" [The Algerian "MiG's Return to the Russian Air Force], *Kommersant*, February 11, 2009.

in Russia," *RIA Novosti*, March 17, 2009, <http://en.rian.ru/russia/20090317/120604177.html>.

²⁰ "Rossiiskie istrebiteli vyletaiut iz stroia" [The Russian Fighter Jets Become Obsolete], *Kommersant*, March 16, 2009.

²¹ Reuben F. Johnson, "Sukhoi's T-50 PAK-FA Fighter Enters First Stage of Assembly," *Jane's Defence Weekly*, January 14, 2009, p. 7; "Russia's Latest Fighter Jet Carries out 100th Test Flight," *BBC Monitoring Global Newslines – Former Soviet Union Political File*, March 26, 2009.

²² This applies similarly to the Russian armed forces' helicopter fleet which consists primarily of aging aircraft. Thus far, only a few helicopters of the new Ka-52 and Mi-28N models have been produced.

Table 3
Stock and Modernization Projects of the Navy's Conventional Forces (as of May 2009)

Category	Type	Number of vessels
Tactical submarines, total		52 (15 of which in reserve)
Modernization projects for tactical submarines	Project 855 Yasen	One boat under construction; completion planned in 2011
	Project 677 Lada	One boat on test runs since 2006, two under construction
Aircraft carriers	Project 1143	1
Cruisers		5
Destroyers		15
Frigates, total		17
Modernization projects for frigates	Project 11661 Gepard	1
	Project 11356 Krivak	2
	Project 11540 Neustrashimy	2 (plus one under construction)
Corvettes, total		23
Modernization projects for corvettes	Project 20380 Steregushchy	1 (plus up to four under construction)

Source: The author's compilation is based on data in the following sources: IISS, *The Military Balance 2009*. *The Annual Assessment of Global Military Capabilities and Defence Economics* (London, 2009), pp. 220–221; "Military," *GlobalSecurity.org*, October 12, 2008, www.globalsecurity.org/military/world/russia/ship.htm.

The Navy

The processes of decay of the conventional armed forces in the 1990s most of all affected the navy.²³ In contrast to the ground forces and the air force, it was hardly at all employed in the conflicts on post-Soviet space outside the Russian borders and not at all in the two wars in Chechnya. In the allocation of scarce resources, the cost-intensive navy, for that reason, was last on the list of recipients. As a consequence, in the 1990s ship building was largely discontinued. The political leadership has attached more importance to the navy only starting from the turn of the century. The renewed interest is apparently connected with the Kremlin's desire more credibly to advance "Great Power" claims by a more visible presence on the high seas; to protect the security and economic interests of

a country that adjoins two oceans as well as the Caspian and the Black Sea; and to support the claim to energy resources in the Arctic.

The rediscovery of the navy manifests itself in increased budgetary allocations, attempts at the revitalization of the ship-building industry and several modernization programs. Ships are being refurbished, projects begun in the 1990s are being completed and new ships are planned to be built. The plans, however, are insufficient to arrest the process of shrinking fleets. In the years to come, many ships will have to be decommissioned because of obsolescence.²⁴ Contraction, furthermore, is bound to continue also because ship-building in Russia is an extraordinarily slow process. For instance, work on the first submarine of the Yasen class has been on-going since 1993 with no end in sight. It is, therefore, questionable whether 14

²³ The Russian navy consists of four fleets, the Pacific, the Baltic, the Northern and the Black Sea Fleet as well as a Caspian Flotilla. The most modern vessels, including submarines equipped with strategic nuclear weapons, belong to the Northern and the Pacific Fleet.

²⁴ The military expert Alexander Khranchikhin estimates that, because of lacking servicing, only 15 of Russia's 61 surface ships can be said to be operational; see his article, "Likvidatsiia schitaetsia reformoi" [Liquidation Is Considered to Constitute Reform], in: *Nezavisimoe voennoe obozrenie*, February 13, 2009.

new ships will be built as planned in 2009–2011.²⁵ In the medium term, it is more likely that the navy, just like the ground forces and the air force, will shrink and be insufficiently modernized.

Lessons of the War in Georgia: Russia's Lacking Capabilities for Network-Centric Operations

Information systems and high technology weapons play a central part in contemporary ideas about the command and control of military operations. These ideas are part of the overarching concept of “network-centric warfare” which was developed and applied for the first time by the United States in the 2003 war in Iraq. The operational concept is to link reconnaissance, command and control and weapons systems in one unified network. The linkages are meant to achieve battlefield dominance in the reconnaissance domain; facilitate rapid actions and reactions over great distances; and safeguard effective coordination of the different armed services and branches. The concept is directly related to new principles of force employment: traditional large-scale battles in that thinking are replaced by the emphasis on precise air strikes and special operations against enemy command and control facilities.²⁶

In principle, Russia's political and military leadership has recognized the necessity of restructuring the armed forces, equipping them with high technology weapons and effectively to link personnel and materiel in battlefield networks. It has frequently announced that corresponding improvements would be made. Such improvements, however, have only begun. This was clearly revealed by the August 2008 war in Georgia.

Concerning reconnaissance assets, the war showed that the Russian armed forces lacked air-based radar systems and that this applied above all to unmanned aerial vehicles (UAVs). Whereas the United States and other NATO countries have rapidly built up corresponding capabilities, the Russian armed forces have at their disposal almost only outdated and hardly

usable systems.²⁷ One of the results of that state of affairs in the five-days' war was the fact that Russian reconnaissance detected the positions of the Georgian air defense too late and, therefore, lost a total of seven airplanes.

Considerable deficiencies are also evident in communications systems. According to Russian media reports, there was no radio contact between the units engaged in combat. In some cases, officers were said to have used mobile telephones of Russian reporters so as to establish contact with staff headquarters and command posts.²⁸ Inadequate communication also hindered effective coordination of the various units of the armed services and branches. The ground forces and the air force largely operated separately from each other. The armed forces, as it turned out, also failed to form joint task forces, one of the features of network-based operations.

As regards weapons systems, Russia has made some progress in modernization. The ground forces have at their disposal the Iskander (SS-26), which is the world's most effective short-range missile.²⁹ The defense industry has developed and produced laser and satellite guided precision ammunition such as KAB-500 bomb and the Kh-555 and Kh-101 cruise missiles. Marked success was also achieved in the improvement of the satellite-based GLONASS navigation system.³⁰

²⁷ The A-50 may be considered to be the equivalent of AWACS but only now are efforts being made to provide this system with corresponding digital equipment. Concerning reconnaissance UAVs, Russia possesses almost only obsolete or hardly operational systems such as the Tu-134, Tu-234, Pchela-1 and Pchela-2. Newly developed systems, such as the Tu-300 and BLA-05 Tipchak, suffer from teething problems; see, for instance, “Russland testet modernisiertes Radarflugzeug A-50M,” *RIA Novosti*, September 10, 2008, <http://de.rian.ru/safety/20080910/116695085.html>; “Neue Russische Drohne zu laut und mit Feind zu verwechseln,” *RIA Novosti*, April 10, 2009, <http://de.rian.ru/safety/20090410/121053891.html>.

²⁸ Christian Lowe, “Georgian War Shows Russian Army Strong but Flawed,” *Reuters*, August 20, 2008, www.alertnet.org/thenews/newsdesk/LK238040.htm.

²⁹ The Iskander has a range of between 450 to 500 kilometers and can be fitted with different conventional and possibly also nuclear warheads. The weapon is highly accurate and maneuverable so that it is difficult for any missile defense system to intercept it; see Mikhail Barabanov, “Iskander the Great,” *Moscow Defense Brief*, Vol. 14, No. 4 (2008), <http://mdb.cast.ru/mdb/4-2008/item1/article1/>.

³⁰ At the end of May 2009, Russia's Global Navigation Satellite System (*Global'naiia navigatsionnaia sputnikovaia sistema*) consisted of 17 satellites. For a complete coverage of the

²⁵ Iurii Gavrilov, “Vitse-Prem'er Sergey Ivanov: Oboronnyy zakaz nadezhno zashchishchen ot krizisa” [Vice Premier Sergey Ivanov: The Armaments Order Is Reliably Protected from the Crisis], *Rossiyskaja gazeta*, February 26, 2009.

²⁶ See Sascha Lange, *Netzwerk-basierte Operationsführung (NBO). Streitkräfte-Transformation im Informationszeitalter*, Berlin: Stiftung Wissenschaft und Politik, SWP-Studie, No. 22 (May 2004).

High technology weapons were hardly used by Russia in its war against Georgia. This is due, among other things, to the fact they have only been produced in small numbers.³¹ Moreover, there is a lack of modernized or new weapons systems which are capable of launching precision guided ammunition. On the whole, Russia's airplanes, helicopters and tanks have inadequately been equipped with weapon enhancing devices such as infrared cameras, night vision scopes or goggles and friend/foe navigation and recognition systems. This renders the existing weapons systems practically useless for certain operations and under certain conditions, as, for instance, at night or in bad weather. Without a thorough modernization of airplanes, helicopters and tanks, progress in the deployment and employment of precision weapons will be exceedingly slow; Russia's capabilities for network-centric operations will continue to lag behind U.S. and NATO efforts.

Overall, the war in Georgia demonstrated that Russia's conventional armed forces have yet to make a successful transition from the industrial age to the information age. Their victory was not achieved by the quality of modern equipment and more flexible command and control procedures but primarily by quantity, by thorough preparation and the rapid collapse of the Georgian army. Continuous exchange of information in "real time" and reliable reconnaissance was lacking so that information dominance could be realized only at the end of the conflict. The military operations, furthermore, underlined that Russia's armed forces are still wedded to traditional ideas of a large land war rather than relying on modern concepts that envisage the use of precise air strikes.³² The war also proved that, predictably,

Russia was able to defeat a small post-Soviet country. This does not, however, permit any conclusion with regard to the outcome of a possible conventional war with an adversary stronger than Georgia.

The New Face of the Armed Forces: From Mass Mobilization Army to Combat-Ready Forces

The military capabilities of a country are to be measured not only in terms of equipment. Organizational structure, the level of education and training of the soldiers and the leadership qualities of their officers also have to be taken into account. This is even more important if modern operational concepts are to be applied since they require well trained and led personnel in order for the armed forces to be able to handle high technology systems which, in turn, determine the speed of military action and reaction in real time.

In this domain, too, the war in Georgia revealed weaknesses of the Russian conventional forces but it also provided new impetus to army reform efforts. In a number of cases, ideas are being reconsidered that had been developed under Medvedev's predecessors. If they were to be implemented, the reforms would, indeed, lead to a "new face" of the armed forces, as the president promised in March 2009.³³ The changes would herald the end of the Soviet model of a mass mobilization army preparing for a large-scale land war. Russia's armed forces would be more mobile, more flexible and more professional, and they would be able to act more effectively in local and regional as well as in asymmetrical conflicts.

Changes in Organizational Structure and Force Employment Concepts

The current military reform efforts are based on the realization that, as chief of general staff Nikolai Makarov put it, "future military conflicts arise rapidly,

Russian territory or a partial global coverage, however, 24 satellites would be necessary; see Russian Space Agency, Information – Analytical Centre, www.glonass-ianc.rsa.ru/pls/htmldb/f?p=202:3:4158374220537529026::NO; "Russia to Launch 3 GLONASS Satellites on September 25," *RIA Novosti*, September 15, 2009, <http://en.rian.ru/science/20090915/156134044.html>.

³¹ The first eight Iskander missiles were delivered to the Russian armed forces in 2007. The Armament Program 2007–2015 provides for the production of 120 missiles, which would correspond to an annual production rate of 16 missiles. That rate, however, has not been reached. No data are available concerning the state of affairs with the development and production of precision guided ammunition.

³² For more detail see Margarete Klein, *Militärliche Implikationen des Georgienkrieges. Zustand und Reformbedarf der Russischen*

Streitkräfte, Berlin: Stiftung Wissenschaft und Politik, SWP-Aktuell, No. 74 (October 2008).

³³ "Stenograficheskii otchet o rasshirennom zasedanii kollegii Ministerstva oborony" [Stenographic Protocol of the Enlarged Session of the Defense Ministry Collegium], Official website of the Kremlin, February 3, 2009, www.kremlin.ru/appears/2009/03/17/1450_type63376type63378_type63381_214076.shtml.

develop rapidly and end rapidly.”³⁴ According to president Medvedev, the main goal of military reform, therefore, consisted in “improving operational readiness of our armed forces.”³⁵

In order to achieve this goal, it would be necessary to change the organizational structure and force employment concepts of the armed forces; both originated in the Soviet era. Organizationally, Russia’s armed forces are divided into three armed services (*vidy*), the Ground Forces, the Air Force and the Navy, and three branches (*rody*) directly subordinated to the general staff, the Strategic Forces, the Space Forces and the Airborne Forces. This structure is to remain unchanged. To be altered, however, are the commands of the armed services. Whereas their structure until now has consisted of regiments, divisions, armies and military districts, in future only three organizational levels are to be maintained: brigade, operational command and military district.³⁶ The projected changes indicate that the traditional force employment concepts are to be abandoned. The cumbersome divisions were adequate for large-scale operations along a front line of several hundred kilometers, that is, for a large-scale inter-state war but the smaller brigades permit more rapid actions and reactions in local, regional and asymmetrical conflicts.

The fact that the defense ministry intends to abandon time-honored force employment concepts is indicated also by the lesser importance attached to reserves. Until now, the Russian army could count on being able to call up more than 20 million reservists. In the future, however, the armed forces in war-time should comprise no more than 1.7 million men and women, as chief of general staff Makarov announced in December 2008.³⁷ In the course of military reform,

the army is to be reduced from the present 1.13 million soldiers to 1 million by 2016. The reserve forces will consist of only 700,000 military service personnel, that is, only 3.5% of its present strength.

In order to compensate for this loss of mass mobilization potential, according to president Medvedev, until 2012 “all combat units and formations [should have] the status of permanent operational readiness.”³⁸ The war in Georgia yet again demonstrated the urgent need for reform in this respect. As Makarov has stated, during their employment in the Caucasus, only 17% of the units were “capable of fulfilling their tasks.”³⁹ That may be an improvement in comparison to the war in Chechnya in 1999, when only 5% of the military units were operational,⁴⁰ but it also means that 83% of the units are still in an unsatisfactory state of readiness in terms of personnel and equipment.⁴¹ Such “paper” or “cadre” units are yet another relic of the mass mobilization army. They consist primarily of officers, and in times of war, the units would be filled by reservists. This system, however, hinders the rapid employment of forces. It is for that reason that the cadre units are to be dissolved by 2012 and to be replaced by fully staffed and equipped units. In order to permit rapid reaction in direct proximity to Russia, the defense ministry plans to deploy an airborne brigade in each military district.⁴²

If the planned restructuring were to be carried out, Russia’s armed forces would be capable of acting much more effectively in local conflicts such as the war in Georgia, anti-terrorist operations or the suppression of insurrections. This would not seriously alter the balance of forces with NATO countries but Russia could buttress its position of military dominance on post-Soviet space.

34 “Rossiiskaja armii okazalas’ne gotova k voenam budushchego” [The Russian Army Revealed Showed Itself Not to Be Ready for the Wars of the Future], *Izvestiia*, December 16, 2008.

35 “Stenograficheskij otchet” [op. cit., fn. 33].

36 Divisions will exist only in the branches (*rody*) of the armed forces. In the air force, the previous air force brigade will now be transformed to a new organizational element, which will be called air force basis and which will consist of three to four wings; see Ruslan Pukhov, “Serdyukov’s Plan for Russian Military Reform,” *Moscow Defense Brief*, Vol. 14, No. 4 (2008), <http://mdb.cast.ru/mdb/4-2008/item6/article1/>.

37 Aleksandr Golts, “Sekretnaia reforma. Reorganizaciia Vooruzhennykh sil provoditsia kak voennaia operaciia – v glubokoi taine ot tekh, kto okazalsia ee ob’ektom” [Secret Reform: The Reorganization of the Armed Forces Is Being Carried Out Like a Military Operation – Kept Top Secret from

All Those Whom It Concerns], *Pro et Contra*, Vol. 13, No. 1 (2009), pp. 62–75 (p. 65).

38 “Stenograficheskii otchet” [op. cit., fn. 33].

39 “Top Russian General Reaffirms Key Role of Ground Troops in Year-end Interview,” *BBC Monitoring Global Newswire – Former Soviet Union Political File*, January 1, 2009.

40 In his annual address to the Federal Assembly in May 2006, Putin had criticized that, at the beginning of the second war in Chechnya in August 1999, only 55,000 instead of the needed 65,000 servicemen had been available; Vladimir Putin, “Poslanie Federal’nomu Sobraniuu,” Official website of the Kremlin, May 5, 2006, www.kremlin.ru/appears/2006/05/10/1357_type63372type63374type82634_105546.shtml.

41 “Top Russian General Reaffirms Key Role of Ground Troops” [op. cit., fn. 39].

42 “Russian CGS Meets Military Attachés, Discusses Army Reform, Other Issues,” *BBC Monitoring Global Newswire – Former Soviet Union Political File*, December 12, 2008.

Improvements in Training

The operational readiness of armed forces crucially depends on the skills and training of the soldiers. In this respect, the trough of the 1990s has been left behind. At that time, as then president Putin deplored in May 2006, “the troops conducted exercises on maps, only on maps, the navy never left the dockyards, and the air force did not fly.”⁴³ In contrast to that period, the number of maneuvers and exercises has continuously increased. In autumn 2008, under the name of Stability 2008, the biggest military maneuvers since the disintegration of the Soviet Union were held. A total of 8,500 Russian troops took part in them; they lasted almost one month and covered eleven time zones.⁴⁴ In February 2008, a Russian naval unit performed the longest lasting exercises in the Mediterranean Sea and the Atlantic Ocean since the end of the Cold War. In addition, Russian naval vessels were dispatched to Asia, Latin America and the Caribbean for port visits, and they participated in operations against piracy at the Horn of Africa.⁴⁵

Although the number, duration and complexity of the maneuvers may have increased, the general state of training of the soldiers is still in need of improvement. For instance, the number of flying hours of the pilots of the strategic bombers amounts to 80 to 100 flying hours per year, of transport aircraft 60 hours, helicopters pilots 55 hours and pilots of the tactical air force 20 to 25 hours. U.S. fighter pilots, in contrast, perform 189 training hours annually.⁴⁶ The consequences of the relative lack of training at the tactical air force could be observed during the war in Georgia. At that time, as chief of staff Makarov deplored, “we could literally count with our fingers how many pilots managed to fulfill combat missions under the

⁴³ Putin, “Poslanie Federal’nomu Sobraniuu” [op. cit., fn. 40].

⁴⁴ “Stability 2008” was a joint Russian-Belarusian exercise, held from September 22 to October 21, 2008, in which 20 of Russia’s 79 strategic bombers participated and where, for the first time since 1984, the planes launched cruise missiles. In 2008, two other big maneuvers took place: Caucasus 2008 in the month of July, in which 8,000 Russian soldiers participated, and Center 2008 in September, a joint Russian-Kazakh exercise with 6,000 Russian soldiers participating. “News Details – Stability,” The Russian Federation, Ministry of Defence, September 22, 2008, www.mil.ru/eng/1866/12078/details/index.shtml?id=51595.

⁴⁵ Vgl. Ilya Kramnik, “Restoring the Tradition. Russian Navy on Long-distance Tours on Duty,” *RIA Novosti*, December 15, 2008, <http://en.rian.ru/analysis/20081215/118867561.html>.

⁴⁶ IISS, *Military Balance 2009* [op. cit., fn. 14].

simplest conditions.”⁴⁷ Deficiencies are also still evident in the navy. Necessary training missions cannot be performed since many ships are badly serviced. In short, the big land, air or naval maneuvers may be effective in influencing public perceptions but they should not cloud the view towards the still existing shortcomings and limited readiness of the Russian armed forces.

Efforts to Create Professional Armed Forces

If the objectives of creating armed forces in a state of “permanent readiness,” curtailing the number of reserve forces and putting greater emphasis on high technology weapons were to be met, conscription would lose its military significance. Instead, there would be an increased demand for well trained professional soldiers. The current military reform efforts, however, do not provide clear answers to the question hotly debated since the beginning of the 1990s as to whether conscription should be retained or abolished. Conscription continues to be adhered to presumably because of three reasons: resistance by military leaders to its abolition; problems of recruitment; and the large geographic extent of Russia. However, starting from January 1, 2008, the length of obligatory military service was cut from 24 months to 12 months. In addition, the program for increased professionalization of the Russian armed forces begun under president Putin has been continued. Since 2002, attempts have been made to staff selected units exclusively with soldiers serving under contract (*kontraktniki*). This applies especially to units that are crucial for rapid deployment or are stationed in conflict-ridden regions, among them the 76th airborne division in Pskov, the 42nd motorized rifle division in the Northern Caucasus and the 201st motorized rifle division in Tadzhikistan. In the future, such elite units are to be created in Russia’s southern areas where the country borders on fragile regions with high conflict potential.⁴⁸

The attempts at professionalization, however, suffer from recruitment problems. According to Russian press reports, at present, instead of the planned

⁴⁷ Mikhail Zubov, “Oficerov perekvalifitsiruiut v upravdomy” [The Officers Are Being Retrained for Duty in Administration], *Moskovskii komsomolets*, December 18, 2008.

⁴⁸ “Russian CGS Says No Plans to Give Up Conscripts,” *BBC Monitoring Global Newline – Former Soviet Union Political File*, December 17, 2008.

144,000 *kontraktniki* only 76,000 military service personnel serve on contract. Even the elite units are still not fully staffed with volunteers. For instance, in autumn 2009 a total of 1,500 conscripts were drafted to the 76th airborne division.⁴⁹ A particularly difficult problem is the fact that only 20 to 25% of the *kontraktniki* are willing to renew their contract.⁵⁰ A large part of the most experienced soldiers, therefore, are lost to the army. The disinclination to renew contracts is most likely due to the inadequate social and economic conditions of the volunteers. According to data of the Russian ministry for health and social welfare, about 30% of the families of the soldiers and younger officers on contract live below the poverty line.⁵¹ The problems, however, are not limited to the insufficient number of volunteers but also extend to their quality. Even the defense ministry has acknowledged that the volunteers do “not represent the best segment of the youth of the country.” The majority of the *kontraktniki* were people who “for various reasons did not manage to get on in civilian life.”⁵² Since the armed forces, in view of the negative demographic trends, will increasingly have to rely on volunteers, attracting qualified personnel will be a crucial task for the army in the years to come.

Problems and Reforms of Leadership

Fulfilling that task is particularly necessary at the leadership level: Armed forces ready for combat need properly trained officers and non-commissioned officers capable of training soldiers and leading them competently. In that respect, however, the Russian armed forces are rife with problems. One of them is connected with the great number of officers which, in turn, is a legacy of the mass army based on extensive mobilization capabilities. There are 355,000 officers in the Russian army, that is, one officer for every 2.5 soldiers. This is more than in any other armed force in the world. Many officers only serve in “cadre” or

“paper” units that, as mentioned, are not fully staffed and equipped but are to be filled with reservists only in times of war. It is again the war in Georgia that revealed the limited ability of officers to lead troops. “In order to find a person in the rank of lieutenant colonel, colonel or general capable of responsibly leading forces, you had to look left and right in the armed forces,” chief of staff Makarov deplored. “The staff officers sitting in offices in charge of paper regiments and divisions were simply incapable of fulfilling the tasks that arose during the five-day war.”⁵³

Russia, on the one hand, is saddled with a bloated officers’ corps but, on the other hand, lacks a professional corps of non-commissioned officers. This middle level of leadership in Western armed forces is crucial for the maintenance of discipline and for training. In Russia, contrary to that, non-commissioned officers traditionally are “the least utilized human resource in the military.”⁵⁴ They hardly receive any special training. They are either *kontraktniki* or senior recruits who merely received a three to four months’ crash course.

Lacking professionalism of the non-commissioned officers in conjunction with a top-heavy officers’ corps serves to explain why discipline in the forces leaves much to be desired. One of its more serious manifestations is *dedovshchina*, literally, the rule of the grandfathers, a system of mobbing, exploitation and abuse of freshly drafted recruits by longer-serving conscripts and superiors. It is assumed that the majority of suicides in the army are a direct consequence of this system. In 2008, according to the defense ministry, 23 soldiers died as a result of murder or manslaughter, and 215 committed suicide.⁵⁵ The estimates by independent non-governmental organizations, such as the Committee of the Soldiers’ Mothers, however, are substantially higher. Moreover, the Committee asserts that mobbing is one of the main reasons why every year up to 50,000 soldiers are absent from their units without leave.⁵⁶ *Dedovshchina*, obviously, undermines

49 Aleksandr Golts, “Zamknytyj krug reform” [The Closed Circle of Reform], *Ezhednevnyi zhurnal*, August 4, 2009.

50 “Russia to Draft over 305,000 People during Spring Call Up,” *BBC Monitoring Global Newswire – Former Soviet Union Political File*, April 1, 2009.

51 “Over One-third of Russian Junior Officers, Contract Soldiers below Poverty Line,” *BBC Monitoring Global Newswire – Former Soviet Union Political File*, December 15, 2008.

52 “Recruitment,” The Russian Federation, Ministry of Defence, www.mil.ru/eng/1862/12069/index.shtml.

53 “Russian CGS Complains of Lack of Combat-ready Officers,” *BBC Monitoring Global Newswire – Former Soviet Union Political File*, December 17, 2008.

54 Zoltan Barany, “Resurgent Russia? A Still-Faltering Military,” in: *Policy Review*, No. 147 (February–March 2008), pp. 4–6.

55 “Tausende Verbrechen und Hunderte Todesfälle in Russlands Streitkräften,” *RIA Novosti*, December 22, 2008, <http://de.rian.ru/safety/20081222/119092003.html>.

56 Michael Ludwig, “Frauen, vor denen sich sogar Offiziere fürchten,” *Frankfurter Allgemeine Zeitung*, March 3, 2009. The number of 50,000 is cumulative, not an annual figure.

operational readiness of the armed forces and exacerbates the problem of recruitment.

The problems of discipline are evident also in high crime rates among the conscripts as well as among the volunteers. According to official data, military service personnel in 2008 committed a total of 15,390 crimes.⁵⁷ The majority of the crimes were instances of corruption. Their rate, from 2007 to 2008, increased by one third, and the damage in monetary terms amounted to 2.2 billion rubles, which is the equivalent of the cost of 30 T-90 battle tanks.⁵⁸

The war in Georgia, among other consequences, has led to serious attempts at reform of the middle and higher levels of military leadership. One of the first planned efforts is to radically decrease the number of officers. Within the framework of the planned reduction of the armed forces' strength from 1.13 million to 1 million soldiers by 2016, a total of 195,000 officers' posts, that is, almost 55% of the current total, is scheduled to be scrapped. The cuts will affect the higher ranks in particular so that the personnel profile, in the words of chief of staff Makarov, will change from "an egg, swollen in the middle, to a pyramid."⁵⁹

In a second step, a professional corps of non-commissioned officers is to be created. Sergeants and staff sergeants are to be trained for 34 months with special emphasis on managing high technology weapons.⁶⁰ That, indeed, is an almost revolutionary measure since it requires changes in the institutional culture of the military. Curricula for instruction and training have to be fundamentally altered, and officers will have to learn how to delegate authority. However, thus far, interest in the new career options opening up in the Russian armed forces has been weak. The first course for sergeants had to be postponed from February to autumn 2009 because a sufficient number of qualified applicants could not be found.⁶¹ Whether the goal of

creating a volunteer army supported by conscripts serving only one year, changing the institutional culture and improving the image of the armed forces in society will be achieved strongly depends on the provision of adequate financial resources.

Table 4
Projected Changes in Leadership Positions

	2008	2016
Troop strength	1,130,000	1,000,000
Officers	355,000	150,000
Generals	1,107	886
Colonels	25,665	9,114
Majors	99,550	25,000
Captains	90,000	40,000
Lieutenants	50,000	60,000
Officer cadets	140,000	20,000
Officers serving in command positions at the defense ministry and in the general staff	27,873	8,500
Non-commissioned officers serving on contract	unknown	200,000

Sources: Dale Herspring and Roger McDermott, "Medvedev Overplays the 'Military Card' in Trying to Impress Obama," *Johnson's Russia List*, March 29, 2009, www.cdi.org/Russia/johnson/2009-62-30.cfm; "NCOs in Russian Armed Forces to Number 250,000 in Future," *RIA Novosti*, January 21, 2009, <http://en.rian.ru/russia/20090121/119732170-print.html>.

Capabilities for Power Projection with Conventional Forces: Russia as a Regional Power

The military reform efforts, as mentioned, are designed to transform the cumbersome mass mobilization army inherited from the Soviet Union into modern combat armed forces. If the planned reforms were to be carried out, Russia's capability rapidly and effectively to project power outside its own territory would be enhanced. This applies above all to the CIS area. Russia's capabilities for global military power projection in the conventional sphere, however, are likely to remain limited. This can be shown by examining the most important factors for power projection: the reach of weapons systems; logistical capabilities; and military bases abroad.

As for the first two factors, Russia's armed forces have at their disposal conventional weapons with a wide radius of action. Like the United States, Russia is

⁵⁷ "Tausende Verbrechen und Hunderte Todesfälle" [*op. cit.*, fn. 55].

⁵⁸ "Military Corruption Costs Russia Almost \$80 Million in 2008," *RIA Novosti*, December 2, 2008, <http://en.rian.ru/russia/20081202/118637765.html>.

⁵⁹ As quoted by Pavel Felgenhauer, "A Radical Military Reform Plan," *Eurasia Daily Monitor*, Vol. 198, No. 5, October 16, 2008.

⁶⁰ Nikita Petrov, "Russia to Start Training Professional Sergeants Soon," *RIA Novosti*, January 30, 2009, <http://en.rian.ru/analysis/20090130/119894538.html>.

⁶¹ Deniz Tel'manov, "Serzhant kursantu ne tovarishch" [Participants in Non-Commissioned Officers' Training Courses Are No Comrades], *GZT.RU*, March 25, 2009, <http://gzt.ru/politics/2009/03/25/223011.html>.

re-equipping some of its strategic and medium-range bombers with conventional precision weapons.⁶² The Russian air force also possesses 293 transport airplanes for carrying weapons, equipment and soldiers, although this is an aging fleet troubled by operational problems. For protracted military operations far away from the post-Soviet space, however, Moscow is lacking logistical capabilities, above all, in the maritime dimension. Thus, the Russian navy only owns one single aircraft carrier, the Admiral Kuznetsov, which is in poor condition. The same applies to naval aviation. As a rule, however, in order to project power on a global scale, at least three carrier groups would be necessary.⁶³ Concerning the third factor, Russia is lacking military bases outside the post-Soviet space (see Table 6, p. 20). After the end of the Cold War, Moscow lost most of its bases in Asia, Latin America, the Caribbean and Africa. The last bases overseas in Lourdes on Cuba and Cam Ranh in Vietnam were closed after September 11, 2001.

Russia's capabilities for global power projection in the conventional sphere are, therefore, limited. As a consequence, it has in the past few years engaged in stage-management so as to convey the image of military greatness. For example, it now has reverted to dispatching strategic bombers to patrol flights over Atlantic and Pacific areas and naval units to the Caribbean and the Indian Ocean. Furthermore, various official and non-official spokesmen sporadically speculate about huge projects such as the construction of several new aircraft carriers or military bases in Cuba and other far-away places. All of this, however, provides little substance for the Great Power claims.

In the CIS area, however, Russia does possess capabilities for effective power projection. With its 1.13 million men, it has more than twice as many soldiers as all the post-Soviet countries combined. Even

Ukraine, the country with the second largest army on post-Soviet space, only has one tenth of the armed forces of its powerful neighbor (see Table 5). Russia is also in a category of its own in the CIS area, both quantitatively and qualitatively, in terms of weapons. Due to the fact that the other countries of the region are militarily weak and their weapons technologically backward, Russia's deficiencies in high technology weapons and information systems do not carry much weight. Russia, furthermore, since 1993 has progressively built up its military presence on post-Soviet space. In that year, it opened its first military basis abroad since the collapse of the Soviet Union. After the war in Georgia, Russia massively increased its troop presence in the Caucasus. With Abkhazia and South Ossetia, it concluded treaties that allow Russia to deploy up to 7,600 soldiers, which would be one third of the size of the Georgian army.

Table 5
Troop Strengths and Selected Weapons Systems in 2008

Country	Troop strength (active forces)	Battle tanks	Combat aircraft
Russia	1,130,000	23,860	1,988
Armenia	42,080	110	16
Azerbaijan	66,940	320	47
Belarus	72,940	1,586	175
Georgia	21,150	53	8
Moldova	6,000	0	0
Ukraine	129,925	2,984	211
Kazakhstan	49,000	980	162
Kyrgistan	10,900	150	52
Tadzhikistan	8,800	37	0
Turkmenistan	22,000	670	94
Uzbekistan	67,000	340	135

Source: The author's own compilation based on data of the International Institute for Strategic Studies (IISS), *Military Balance 2009. Annual Assessment of Global Military Capabilities and Defence Economics* (London, 2009). The IISS estimates Russian troop strength at 1,027,000 officers and men, the Russian defense ministry provides a figure of 1,130,000 armed service personnel.

It is also in the CIS area where relatively the greatest danger exists that Russia could attempt to assert its political agenda by increased reliance on military means. Traditionally, Moscow has considered the post-Soviet space as its sphere of influence in which it would like to act as the sole power and exclusively define the principles of international order. President Medvedev re-emphasized this on August 31, 2008,

⁶² Examples of this are the Kh-555 cruise missiles (with a range of 3,500 kms) and the Kh-101 (5,500 kms). In summer 2006, the air force received its first Tu-160 strategic aircraft fitted with the Kh-555. The Kh-101 is still being tested; see Nikolai Sokov, "Russian Strategic Forces Meet Successes and Setbacks at Year End," *WMD Insights*, No. 12 (February 2007), pp. 41-46, http://wmdinsights.org/I12/I12_R3_RussianStrategicForces.htm; "Russian Air Force to Develop 'General-Purpose Forces' - Commander," *BBC Monitoring Global Newsline - Former Soviet Union Political File*, February 11, 2009.

⁶³ This is under the assumption that one aircraft carrier is being serviced, a second one on training mission and a third on duty. A carrier task force consists of a combat unit that comprises one aircraft carrier and several accompanying vessels.

Table 6
Russian Military Facilities and Bases Abroad

<i>Host country</i>	<i>Type of military basis</i>	<i>Troop strength</i>
Armenia	Air base in Yerevan, military basis in Gyumri	3,214
Azerbaijan	Radar station in Gabala	900
Belarus	Radar station in Baranovichi and communication center of the navy in Vileyka	850
Georgia	Military bases in South Ossetia (Dzhava and Zkhinvali) and Abkhazia (Gudauta and Gali)	Exact figure unknown; officially 3,000, up to 7,600 allowed
Kazakhstan	Radar station in Balkash	Unknown
Kyrgistan	Air basis in Kant; negotiations for another basis in the south of the country are on-going	ca. 700
Moldova	Peacekeepers in Transnistria and forces for the protection of ammunition depots	1,500
Tadzhikistan	Military bases (Dushanbe, Kurgan-Tube, Kulab) and joint use of the air force base at Ayni	5,500
Ukraine	Basis of the Russian Black Sea Fleet in Sevastopol	13,000
Syria	Logistical facilities of the navy (under repair)	150

Source: The author's own compilation based on data of the International Institute for Strategic Studies (IISS), *Military Balance 2009. Annual Assessment of Global Military Capabilities and Defence Economics* (London, 2009); Mikhail Lukin, "Vse Rossiiskie bazy" [All Russian Bases], *Kommersant' vlast'*, May 21, 2007; Roger McDermott, "Kant Air Base and Russia's Strategic Planning in Central Asia," *Eurasia Daily Monitor*, Vol. 41, No. 6, March 3, 2009, [www.jamestown.org/single/?no_cache=1&tx_ttnews\[tt_news\]=34651](http://www.jamestown.org/single/?no_cache=1&tx_ttnews[tt_news]=34651).

when he called the post-Soviet geographical area a zone of "privileged [Russian] interests" and Russia the protective power of Russians living in that area.⁶⁴

Considering that a whole range of ethnic, territorial, economic and political conflicts exist both within and among the countries of this region, Europe should have a strong interest in reviving conventional arms control agreements. Thus, the main significance of the CFE process for the NATO countries lies in the chance to prevent escalation of regional conflicts to the military level and avoid arms races, notably in the Caucasus, rather than protecting the European countries themselves from military threats that may emanate from Russia.

⁶⁴ "Interv'iu Dmitriia Medvedeva telekanalam 'Rossiia', Pervomu, NTV" [Interview with Dimitri Medvedev in TV channels "Russia," First Channel, and NTV], Official website of the Kremlin, August 31, 2008, www.kremlin.ru/appears/2008/08/31/1917_type63374type63379_205991.shtml.

Russia’s Nuclear Capabilities

“Great Power” Attribute and Instrument of Deterrence

For Russia, nuclear weapons serve a dual purpose. They are, first of all, in addition to the country’s seat as a permanent member on UN Security Council, the last existing attribute of its former superpower status. In this domain, Moscow is at eye level with Washington, and in that respect it distinguishes itself from other countries claiming a greater role in world affairs such as China. With its 14,000 nuclear weapons, Russia possesses the largest atomic arsenal in the world. It is estimated that, in 2009, about 2050 tactical and 2787 strategic nuclear warheads of the total number of warheads were operational.⁶⁵

Next to its symbolic value, since the mid-1990s the importance of nuclear weapons for Russia in terms of actual security has increased. This is directly connected with the relative decline of the country’s conventional armed forces. The Soviet conventional forces were numerically superior to those of the NATO countries by a factor of two to three. After 1991 that ratio was reversed. It is not surprising against this background that nuclear deterrence has assumed greater importance for Russia. This applies to the relationship with the United States and NATO but also to countries improving their conventional capabilities, such as China, and potential nuclear powers, such as Iran. In autumn 2003, therefore, the then president Putin tersely summarized that the nuclear forces of Russia “form the most important basis for national security.”⁶⁶

The increased importance of nuclear weapons also manifests itself in the fact that, since the second half of the 1990s, they have been allocated a new mission and that the threshold for their use has been lowered. In the Soviet era, the purpose they fulfilled was exclusively that of being able to conduct a retaliatory strike

in response to a nuclear strike. Doctrinally, the idea of a first strike was ruled out. The military doctrine of 1993, however, no longer contained the renunciation of a first strike but the employment of nuclear weapons for that purpose at that time was still tied to a narrowly defined contingency which, moreover, was held to be extremely improbable, that is, a large-scale war. In Russia’s military terminology that meant a war with NATO.⁶⁷

Another step towards the greater emphasis on nuclear weapons in security matters constituted the military doctrine of April 2000. The doctrine states that nuclear weapons could be employed not only as a response to a nuclear attack but also to an attack with other weapons of mass destruction and “large-scale attacks with conventional weapons” provided that a “critical situation for national security of the Russian Federation” had been created.⁶⁸ In January 2008, the then chief of staff, General Yuri Baluyevsky, moreover, claimed for Russia the right of the preventive use of force to protect its territorial integrity. This explicitly included the use of nuclear weapons.⁶⁹

The lowering of the nuclear threshold in Russian military doctrine is owed in particular to the perceived dynamics of the wars in Kosovo in 1999 and Iraq in 2003. In Moscow’s perspective, both countries would not have been attacked if they had possessed nuclear weapons. Both operations, furthermore, had demonstrated the extent to which the United States had improved its capabilities for precision strikes over long distances.

⁶⁵ Robert S. Norris and Hans M. Kristensen, “Nuclear Notebook. Russian Nuclear Forces, 2009,” *Bulletin of the Atomic Scientists*, Vol. 65, No. 3 (May–June 2009), pp. 55–64.

⁶⁶ As quoted by Pavel K. Baev, *Russia’s Security Policy Grows “Muscular.” Should the West Be Worried?* Helsinki: The Finnish Institute of International Affairs, Briefing Paper, No. 15, January 25, 2008, p. 4.

⁶⁷ “The Basic Provisions of the Military Doctrine of the Russian Federation,” Federation of American Scientists, November 2, 1993, www.fas.org/nuke/guide/russia/doctrine/russia-mil-doc.html.

⁶⁸ Exempted from the logic of nuclear escalation are countries which do not possess nuclear weapons and have signed the non-proliferation treaty. The negative security guarantees, however, do not apply when such countries, in conjunction with a nuclear armed state, attack Russia with conventional weapons; “Voennaia doktrina Rossiiskoj Federatsii” [Military Doctrine of the Russian Federation], Russian Security Council, April 21, 2000, www.scrf.gov.ru/documents/33.html.

⁶⁹ Pavel Felgenhauer, “Seven Pits of Parade,” *Novaya gazeta*, January 28, 2008.

Contraction and Modernization of Nuclear Capabilities

The central role of nuclear weapons in Russia's thinking on security affairs is reflected in strategic modernization programs started in the mid-1990s. This is quite different from developments in the United States. Washington puts much greater emphasis in its arms programs on the improvement of conventional global strike capabilities as well as on strategic defense rather than the modernization of offensive nuclear weapons.⁷⁰ Moscow, too, possesses a strategic anti-missile defense system but it is much more limited in scope. Whereas the U.S. system is designed after its completion to protect the whole territory of the United States against attack from long-range ballistic missiles, Russia's 68 Gazelle interceptor missiles are stationed only in the proximity of Moscow, designed to protect the capital from nuclear attack. Thus far, an extension of the system to other parts of the country has not been planned. Russia, however, is building up capabilities for defense against short and medium-range ballistic and cruise missiles by deploying S-300 and S-400 anti-missile defense systems. This underlines the fact that also Russia regards countries along its southern periphery, such as Pakistan, Iran and North Korea, as potential threats.

On the whole, however, Russia continues to stand by the classic theory of deterrence that relies on the threat of retaliatory strikes. Moscow's modernization programs correspondingly aim at improving the quality of its offensive strategic nuclear weapons. In this way, first, the contraction process of its nuclear capabilities due to aging and obsolescence is to be compensated asymmetrically. Second, Russia wants to improve its capabilities to overcome the U.S. strategic missile defense system. Third, Moscow is also improving its early warning system. These measures combined are to "guarantee a system of nuclear deterrence for various military and political contingencies" by 2020, as president Medvedev stated on September

⁷⁰ See Michael Paul and Oliver Thränert, *Nukleare Abrüstung und Rüstungskontrolle. Ausblick auf die amerikanisch-russischen Verhandlungen*, Berlin: Stiftung Wissenschaft und Politik, SWP-Studie, No. 9 (March 2009); Alexander Bitter, *Die Nato und die Raketenabwehr. Implikationen für Deutschland vor dem Gipfel in Bukarest 2008*, Berlin: Stiftung Wissenschaft und Politik, SWP-Studie, No. 29 (October 2007).

26, 2008.⁷¹ Further proof of the priority role allocated to nuclear weapons is furnished by the fact that the strategic modernization programs have been exempted from the current cuts in the defense budget.⁷²

Table 7
U.S. and Russian Operational Nuclear Weapons in 2009

	Russia	USA
ICBMs	383	450
Warheads deployed on ICBMs	1,355	550
SLBMs	160	288
Warheads deployed on SLBMs	576	1,152
Strategic bombers	77	113
Air-launched cruise missiles and bombs	856	500
Total number of warheads	2,787	2,202

Sources: Robert S. Norris and Hans M. Kristensen, "Nuclear Notebook. Russian Nuclear Forces, 2009", *Bulletin of the Atomic Scientists*, Vol. 65, No. 3 (May-June 2009), pp. 55-64 (p. 57); "Strategic Rocket Forces," *russianforces.org*, August 4, 2009, www.russianforces.org/missiles; Robert S. Norris and Hans M. Kristensen, "Nuclear Notebook. U.S. Nuclear Forces, 2009," *Bulletin of the Atomic Scientists*, Vol. 65, No. 2 (March-April 2009), pp. 59-69 (p. 61).

Russia's strategic nuclear arsenal, as mentioned, is aging. The major portion of its delivery vehicles was built in the Soviet era and has already exceeded its service life. That applies to 84% of the ICBMs. The reliability of the aging missiles is routinely checked and its service life extended. Russia's intercontinental ballistic missiles were designed to have a service life of about ten years but that of the SS-18, for example, has been extended to 30 years, that of the SS-25 to 21 years and that of the SS-19 to 33 years. Such prolongations obviously cannot be continued endlessly. Since the mid-1990s, therefore, Russia has embarked upon a modernization program of its strategic nuclear forces.

Re-equipment and new construction of delivery vehicles form part of the program. The strategic rocket forces, traditionally at the core of the Russian strategic

⁷¹ Dmitri Medvedev, "Vstupitel'noe slovo na vstreche s komanduiushchimi voennymi okrugami" [Introductory Remarks at a Meeting with the Commanders of the Military Districts], Official website of the Kremlin, September 26, 2008, www.kremlin.ru/appears/2008/09/26/2013_type63374_type63376type82634_206944.shtml.

⁷² "Russia Rules Out Cuts to Nuclear Deterrence Budget," *RIA Novosti*, May 7, 2009, <http://en.rian.ru/russia/20090507/155004485.html>.

triad, have received the Topol-M (SS-27) missile, the silo-based version since 1997 and the mobile version since 2006. Concerning sea-based nuclear weapons, Russia is developing fourth-generation strategic nuclear submarines of the Borey class which are to be equipped with a new SLBM, the Bulava (SS-N-30). Starting from 2007, the strategic nuclear submarines of the Delta-IV class are being equipped with the modernized Sineva (SS-N-23) SLBM. Compared to the land- and sea-based nuclear forces, modernization of the strategic air force, traditionally the weakest part of the triad, has been less extensive. The defense industry is working on a new air-launched cruise missile, the Kh-102, but it is uncertain when the air force will be able to receive it. Similarly uncertain is the end result of the development of a new strategic bomber, the PAK DA, a prototype of which is scheduled to be ready in 2015 at the earliest.

The nuclear modernization program, moreover, foresees the equipment of land- and sea-based missiles with multiple re-entry vehicles (MIRVs).⁷³ In this way, the reduction of the number of delivery vehicles is to be compensated. Russia, at the same time, is thereby improving its capabilities to overcome the strategic anti-missiles system of the United States if it were substantially to be expanded.⁷⁴ The same goal is to be

served by the development a maneuverable warhead (MARV) called Iгла.⁷⁵

Although Moscow has embarked upon a broad modernization of its nuclear forces, all of the corresponding programs suffer from delays and low procurement rates. For instance, in the period from 1997 until January 2009, the average rate for the procurement of the Topol-M was only 5.4 missiles per year. That rate, however, increased in the later years of the modernization program, for instance, to eleven missiles in 2008. The defense budget for 2009–2011 provides for the purchase of 70 ICBMs, which would be double the until now highest procurement rate. Russian military experts, therefore, doubt whether the ambitious goals can be reached. If, however, the current procurement rates were to be maintained, Moscow in 2022 would possess no more than 140 ICBMs with 140 to 560 warheads.

Whereas modernization of the land-based part of the strategic triad is proceeding successfully, albeit slowly, it is still uncertain whether the main sea-based modernization projects will successfully be carried out. For example, work on the Bulava SLBM has been on-going since 1998 but in July 2009 the sixth of a total of eleven tests of the missile failed. Should the project fail, Russia's sea-based strategic forces would find itself in crisis by 2020 since, between the years 2015 and 2020, most likely all of the 15 strategic nuclear submarines of the Delta-III-, Delta-IV- and Typhoon class will be decommissioned because of age. At the end of that process, the sea-based strategic forces should exclusively consist of submarines of the new Borey class which are to be armed with the Bulava missile. Even if, however, the next tests of the Bulava were to be successful, their development and that of the Borey class submarines is lagging far behind the original plans. Thus, the first boat of that class, the Yury Dolgoruky, was meant to be commissioned already in 2002 and a further seven submarines were to be built by 2015. Until now, however, the Yury Dolgoruky has made only test runs and only two more boats are under construction.

The arsenal of the strategic aviation is affected less by aging. This is due, among other things, to the extension of the service life of the Tu-160 and Tu-95 strategic bombers until 2035 by modernization

⁷³ Thus, the Sineva is equipped with ten MIRVs, that is, with four warheads more than its predecessor. The Bulava is planned to be equipped with up to six MIRVs. As for ICBMs, since May 2007, Moscow is testing a version of the Topol-M (RS-24) which can carry up to four warheads; see Nikolai Sokov, "Russia Tests New Strategic Weapons as Vice Premier Rejects Proposals for Increasing the Rate of Weapons Production," *WMD Insights*, Vol. 22 (February 2008), pp. 35–37, www.wmdinsights.com/l22/l22_RU1_RussiaTestsNew.htm; "No Fewer than Four' Warheads on RS-24," *russianforces.org*, http://russianforces.org/blog/2009/03/no_fewer_than_four_warheads_on.shtml.

⁷⁴ In May 2009, the strategic missile defense system of the United States consisted of 25 land-based interceptors in Fort Greeley (Alaska) and three in Vandenberg (California). The deployments do not impair Russia's second strike capacity, and even if the missile defense system were to be enlarged to such an extent that at least 50% of the warheads planned to be used for a retaliatory strike could be intercepted, a disarming first strike could only be imagined as a combination of "perfect planning and fortuitous factors," that is, be practically impossible. According to all other scenarios, Russia would have sufficient warheads for a retaliatory strike. This, at least, is the assessment by Stephen Cimbala, "Russia's Evolving Strategic Nuclear Deterrence," *Defense & Security Analysis*, Vol. 23, No. 3 (2007), pp. 257–279.

⁷⁵ The warhead was tested for the first time on November 1, 2005. According to various reports, the Topol M, Sineva and Bulava are to be equipped with it; see Nikolai Sokov, "Russian Strategic Forces Meet Successes and Setbacks" [*op. cit.*, fn. 62].

Table 8
Russia's Strategic Nuclear Arsenal and Modernization Program as of 2009

<i>Delivery vehicles</i>	<i>Russian classification</i>	<i>NATO classification</i>	<i>Numbers of delivery vehicles</i>	<i>Warheads</i>	<i>Production</i>	<i>Planned decommissioning</i>
ICBMs	R-36MUUTH/ R36-M2	SS-18	68	680	1979–1992	2019
	UR-100NUTTH	SS-19	72	432	1980–1984	2013–2017
	Topol	SS-25	180	180	1985–1992	2007–2014
	<i>Topol M silo based</i>	SS-27	50	50	<i>since 1997</i>	
	<i>Topol M</i>	SS-27	15	15	<i>since 2006</i>	
	RS-24	SS-27	0	0	<i>planned, starting from the end of 2009</i>	
ICBMs, total			385	1,357		
SSBNs	Project 667BDR	Delta III	6		1976–1982	only a few more years
	Project 667BDRM	Delta IV	6		1985–1991	2015–2020
	Project 941	Typhoon	3		1981–1989	uncertain
	Project 955	Borey	<i>(one submarine on test runs, two under construction)</i>		<i>test runs since 2007</i>	
SLBMs	Stingray	SS-N-18	64	192	since 1978	uncertain
	Skiff	SS-N-23	48	192	since 1986	uncertain
	Sineva	SS-N-23 M1	48	192	since 2007	
	Bulava	SS-N-30	0	0	test phase	
SLBMs total			160	576		
Bombers	Tu-95MS6	Bear-H6	32	192	since 1984	about 2035
	Tu-95MS16	Bear-H16	31	496	since 1984	about 2035
	Tu-160	Blackjack	14	168	since 1987	about 2035
Bombers total			77	856		

Source: The author's own compilation based on the following data: Robert S. Norris and Hans M. Kristensen, "Nuclear Notebook. Russian Nuclear Forces, 2009," *Bulletin of the Atomic Scientists*, Vol. 65, No. 3 (May–June 2009), pp. 55–64 (p. 57); "Strategic Rocket Forces," *russianforces.org*, August 4, 2009, www.russianforces.org/missiles; "Russische Interkontinentalraketen dürfen länger fliegen," *RIA Novosti*, May 7, 2009, <http://de.rian.ru/safety/20090507/121477417.html>. Modernization projects since the mid-1990s are in italics.

measures.⁷⁶ The defense ministry plans to reduce the strategic bomber fleet from 77 aircraft at present to 50 by 2015. This would mean that the number of ALCMs by that year would be cut in half.

Since Russia's strategic nuclear weapons arsenal will inevitably shrink in size, the political and military leadership is interested in concluding a bilateral agreement with the United States for lower ceilings than those codified in SORT. It would only be through

such an agreement that Russia could maintain strategic parity with the United States in the future and at the same time limit expenditures for its modernization programs. At present, a big portion of the defense outlays are allocated to nuclear weapons. Thorough modernization of the conventional weapons, therefore, would only be feasible if the financial burden for the modernization of nuclear forces were not to increase. As a result of treaty limitations agreed upon with Washington, Moscow's nuclear forces could be

⁷⁶ Il'ia Kramnik, "Vozvrashchenie letaiushchego medvedeva" [The Return of the Flying Bear], *lenta.ru*, July 19, 2007.

leaner but more effective,⁷⁷ and Medvedev's goal of "guaranteed deterrence capability" would be safeguarded. The complete abolition of nuclear weapons, as proposed by president Obama in his speech in Prague as a long-term objective, however, would not be in Russia's interest, at least not in the medium term. This is notwithstanding the fact that the abolition goal was included in Russia's national security strategy of May 2009.⁷⁸ For as long as the country's conventional armed forces are comparatively weak, it will hardly want to renounce its reliance on nuclear deterrence.

Early Warning System – With Holes

In order to maintain its deterrence capability, Russia not only needs nuclear weapons but also a functioning early warning system. For that reason, in addition to delivery vehicles, and MIRV and MARV warheads, the defense ministry plans to improve the early warning system as the third main pillar of its strategic nuclear modernization program. Since 2006, two radar stations of the new Voronesh type have been built. As a result, Russia's dependency on radar stations in neighboring countries has been reduced and gaps in the coverage in southern, southwestern and western directions have been closed. Since the Voronesh facilities can be built quickly and cost-effectively, it is probable that in the coming years they will be improved and more of them put in place. Early warning satellites, too, have been modernized. In the 1990s, due to financial constraints, the emphasis was put on commercial launchings. This has changed. Since 2006, four new military early warning satellites were transported into space.⁷⁹

The improvements notwithstanding, Russia's early warning system still has gaps. Thus, the radar installations only cover part of the northern hemisphere and also not the whole Russian territory. Gaps exist above all in the far east of the country.⁸⁰ As for the early warning satellites, they can only detect missile launchings from the U.S. mainland and certain areas in the North Atlantic, and that only applies to 18 of the day's 24 hours. For all of these deficits, in the event of a hostile nuclear attack, Russia has available only relatively little warning time.⁸¹ This state of affairs, however, is a problem not only for Moscow because the deficiencies increase the risk of misperception and of an erroneous retaliatory strike.

⁷⁷ Paul and Thränert, *Nukleare Abrüstung* [op. cit., fn. 70].

⁷⁸ "Strategiia natsional'noi bezopasnosti" [op. cit., fn. 2].

⁷⁹ The first "Voronesh" early warning radar installation was deployed in December 2008 in Lekhtusi near St. Petersburg. The second is to follow in autumn 2009 in Armavir, in southern Russia, which would cover the southwestern approaches, that is, above all the direction from Iran. By autumn 2009, Moscow would, therefore, possess five early warning radar installations on its own territory (Lekhtusi, Olenogorsk, Mischelevka, Pechora and Armavir) and three abroad (Baranovich in Belarus, Balkash in Kazakhstan und Gabala in Azerbaijan). In addition to that, Russia operates five early warning orbital satellites, three in an elliptical trajectory and two in a geo-stationary orbit. See Pavel Podvig, "Russian Early-Warning System and the Risk of an Accidental Launch," October 5–6, 2006, <http://cstsp.aas.org/files/pvel.pdf>;

id., "Early Warning," *russianforces.org*, February 2, 2009, <http://russianforces.org/sprm>.

⁸⁰ *Ibid.*

⁸¹ According to Podvig, if an attack against Russia were to be launched, its leadership would have warning time of about 11 to 17 minutes through radar reconnaissance and 14 to 30 minutes by satellite. The warning time for the United States, in contrast, is 18 to 27 minutes through radar and 23 to 31 minutes by satellite. *Ibid.*

Determinants for the Development of Russian Military Capabilities

After seventeen years of lacking or failed reform, Russia's armed forces find themselves in a difficult situation. As outlined above, several modernization projects have been introduced to the nuclear forces, and if these were to be continued and combined with lower ceiling as a result of a new strategic arms control agreement, Russia in the coming years will probably remain more or less on a par with the United States and possess an assured deterrence capability also against a large-scale conventional attack. This would seem to be the first main goal of the military modernization program. Second, the conventional forces are to be transformed from a cumbersome mass mobilization army equipped with outdated weapons to modern combat forces. Whether these goals can be achieved depends on four factors: availability of financial resources; improvement of demographic conditions; a defense industry capable of producing the modern weapons needed; and the ability of the political and military leadership to develop a coherent and sensible demand profile for the armed forces.

Economic Factors

At first sight, the Russian defense budget, since the turn of the century, has grown dramatically. In the period from 2000 to 2008, expressed in rubles, it increased fivefold. In U.S. dollar terms at current exchange rates it rose from \$14 billion to \$38.2 billion. After the war in Georgia, the defense ministry announced plans for a further increase in defense expenditures by 23% to \$46.8 billion for fiscal year 2009.⁸² In addition, an armament program exists that is being financed not only from the defense budget but from other sources such as, for instance, through receipts from arms exports of state military-industrial defense enterprises. For the period 2007–2015, approximately \$189 billion have been earmarked for that program.⁸³

⁸² Ilya Kramnik, "The 'State Defense Order. An Arms Race Gets Off to a Heavy Start,'" *RIA Novosti*, October 27, 2008, <http://en.rian.ru/analysis/20081027/117975176.html>.

⁸³ The true size of the defense budget is difficult to estimate since about 55% of the budget items are classified, their

The strong rise in defense outlays, however, is insufficient fundamentally to improve the condition of the armed forces. This is connected, first, with their big size. Russia seeks to maintain armed forces that are only 20% smaller than those of the United States with a level of financing that, in 2008, constituted merely 6.3% of the U.S. defense budget. Whereas the United States annually spends \$190,000 per soldier, Germany 94,000, and Turkey \$12,700, the equivalent figure for Russia is \$3,800.⁸⁴ Second, after the serious decline of the 1990s, the military modernization requirements in Russia are considerably higher than those in most of the Western countries. In fact, ambitious goals have been set in the present military reform effort: the share of new weapons and equipment until the year 2020 is to rise from 10% to 70%; the nuclear forces are to be completely modernized; and education and training is to be substantially improved.

Third, high inflation rates in the defense sector "eat up" significant portions of the increase in the defense budgets. Whereas the rate of inflation in the economy overall amounted to 13% in 2008, it reached more than 30% in certain weapons categories.⁸⁵ That is to say, as Russian military expert Konstantin Makienko has observed, that "when an increase of the military procurement budget remains below 25%, [the armed forces] are only buying time since the increase does not even cover inflation."⁸⁶ Another portion of the increase in the defense budgets disappears because of wide-spread corruption. Thus, the chairman of the committee on veterans of the Russian civic chamber, Aleksandr Kanyshin, estimates that up to one third of the defense budget is lost because of embezzlement and misappropriation.⁸⁷ When all these factors are

composition changes every year and certain kinds of revenue as, for instance, receipts from state arms firms, are not included; see IISS, *Military Balance 2009* [op. cit., fn. 14], pp. 215ff.

⁸⁴ Barany, "Resurgent Russia?" [op. cit., fn. 54], pp. 4–5.

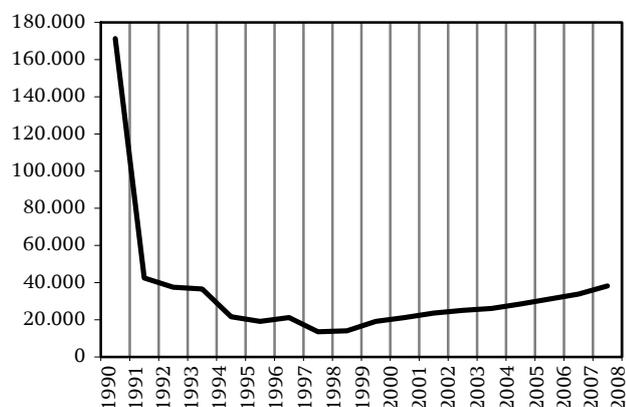
⁸⁵ "Analysis: Russian Budget Suffers Corrosive Effects of Inflation," *Jane's Defence Industry*, August 8, 2008.

⁸⁶ "Bear Market. Russia Ponders How Much Is Enough for Defense," *Defense Technology International* (November 2008).

⁸⁷ "Korrupsiia 'zabiraet tret' voennogo bjudzheta Rossii" [Corruption "Eats Up One Third" of the Defense Budget], *BBC*

combined, the increases in defense budgets turn out to be much less impressive than seem at first sight.

Graph 1
Russia's Defense Budget, 1990–2008
 (in U.S. \$ million and constant prices of 2005)



Source: The author's own compilation based on data of the Stockholm International Peace Research Institute (SIPRI), "Military Expenditure of Russia", <http://milexdata.sipri.org/result.php4>. The figure for 1990 pertains to the Soviet defense budget and is only meant to serve as a point of reference.

In order to carry out the modernization projects, then, the expenditures would have to be much higher than the 2.5 to 2.8% of the gross domestic product, which is the range of the past years. Such a level of allocation, however, would inevitably come in conflict with the current social and economic modernization programs because it is precisely in this area where in the future, too, much money will have to be spent. There is, after all, an urgent need to reduce Russia's extreme dependency on energy exports and to reform the social system in view of negative demographic trends. Against this background, a substantial increase in defense expenditures would put at risk the political leadership's priority and long-term goal of Russia's economic renaissance. Such a course of action, furthermore, could put in question the legitimacy of the current authoritarian regime because the high approval rates for president Medvedev and prime minister Putin are to a large extent predicated on continued economic growth and social stability. Part of the political equation also lies in the fact that even today outlays for defense purposes surpass those for education, health and social welfare. The president

Russian.com, August 3, 2008, http://news.bbc.co.uk/1/hi/russian/russia/newsid_7488000/7488652.stm.

and the prime minister, probably for that very reason, have stated several times that an "arms race" or the return to a "militarized economy" is not at all in Russia's interest.⁸⁸

The chances for the financing of a comprehensive military reform in the past were always modest but they have been reduced even further by the present financial and economic crisis. The crisis has had the effect of removing to a considerable extent the very basis of the substantial increases in the defense budget. Given the great dependency of the state budget on the receipts from oil and gas exports, it was a shock to the Russian economy and finances that the oil price declined from about \$150 per barrel in July 2008 to \$35 in March 2009. Only in early summer of the same year did it climb back to levels above \$60 per barrel. From summer 2008 to spring 2009, the Russian stock market contracted by 75%. State income in 2009 as compared to the previous year is estimated to shrink by up to 31.5%. As a consequence of these developments, the government decided to cut defense expenditures by 8% with the effect that the defense budget will increase, not as planned in autumn 2008, by 26% but only by about 15%.⁸⁹ That level of financing will hardly suffice to compensate for corruption and inflation. The Russian defense budget, in effect, will stagnate whereas the modernization requirements will grow.

It is as yet unclear which areas of the military reform effort will be affected most by the cuts in the growth rate of military expenditures decided upon in fall 2008. President Medvedev has promised that the arms program in 2009 will "almost completely" be implemented as originally planned. That intention is probably motivated by the desire not to create problems in the defense industrial sector which, after all, employs about 1.5 million people. At the same time, however, "large-scale rearmament" has been postponed until after 2011.⁹⁰ That is to say, given the priority allocated to the modernization of the nuclear forces, any comprehensive rearmament of the con-

⁸⁸ See "Strategiia nacional'noi bezopasnosti" [*op. cit.*, fn. 2].

⁸⁹ Pavel Arabov, "Raschetnoe mesto" [Budget Item], *Izvestiia*, February 26, 2009; "Russian Deputy Defence Minister Outlines 2009–2011 Budget Allocations," *BBC Monitoring Global Newline – Former Soviet Union Political File*, March 5, 2009.

⁹⁰ Dmitry Medvedev, "Speech at an Extended Session of the Defence Ministry Board, Moscow," Official website of the Kremlin, March 17, 2009, www.kremlin.ru/eng/speeches/2009/03/17/2037_type82913type84779_214073.shtml.

ventional armed forces in the next few years is not to be expected.

Furthermore, the “soft” parts of military reform will suffer much more from the budgetary cuts in the growth rate than its “hard” parts. For instance, according to press reports the allocations for the creation of a corps of non-commissioned officers have been reduced by 61.5%.⁹¹ This makes it unlikely that the leadership structures will soon be comprehensively reformed and that the acute problems of recruitment will be solved. Furthermore, in order to attract qualified applicants it would be necessary substantially to improve the economic and social conditions in the armed forces. The pay for military personnel in the units at permanent readiness has been increased but about 90,000 officers’ families are still waiting for decent housing.⁹² The problem of recruitment is also connected with demographic developments.

Demographic Determinants

Russia’s population is in decline.⁹³ Starting from 2009, the cohorts with low birth rates, that is those born after 1991, will be drafted so that the number of young men at draft age will decrease from more than 1.1 million in 2007 by about one half to close to 630,000 by 2017. At the same time, starting from January 1, 2008, the length of compulsory military service was cut from 24 months to 12 months so that, at the end of a transition period, the draft requirement will increase from at present approximately 300,000 recruits per year to 600,000.⁹⁴ The planned

decrease in the overall strength of the armed forces from 1.13 million to 1 million men by 2016 will not change much in this respect because the projected cuts are relatively small and the axe is to fall primarily at the level of officers’ corps.

There is another reason why the recruitment problem is unlikely to be solved in the foreseeable future: Only the smaller part of the young men at draft age is fit for service. Some of the factors responsible for this are bad health care, high rates of drug use and declining levels of education. Thus, in spring 2009, only 133,000 of the 305,000 men that had been called up were ultimately inducted. More than half of those who were called up had health problems, and 33% of the draftees were, for that reason, declared unfit for service and sent home.⁹⁵ A significant portion of the draftees are from rural areas and have a below average level of education. In order to increase the number of conscripts, therefore, starting from 2006, the laws on deferment have been changed. It is now possible for the draft boards to call up doctors and teachers in rural areas as well as young men who take care of ill parents, have small children or are enrolled in educational and training institutions. Even if all the possible reasons for deferment were to be abolished, the maximum number of 18-year old men that could be drafted would only increase by about 90,000.⁹⁶ The draft boards, as a consequence, in 2009, have begun to call up conscripts with a criminal record. According to the committee on veterans of the Russian civic chamber, 100,000 of the 305,000 young men drafted in spring 2009 had served in prison or received suspended prison sentences.⁹⁷ This demonstrates that the demographic crisis is not merely a problem for the armed

⁹¹ “Unnamed Russian MP Details Defence Budget Cuts,” *BBC Monitoring Global Newswire – Former Soviet Union Political File*, April 16, 2009.

⁹² In 2008, the defense ministry built only 3000 of the planned 15,700 apartments; “Russia Gives Servicemen Only 20% of Promised Flats,” *BBC Monitoring Global Newswire – Former Soviet Union Political File*, January 4, 2009.

⁹³ According to different projections, lower birth rates coupled with low life expectancy could lead to a decline in the size of the Russian population from at present less than 142 million inhabitants to 136.5 million in 2015 and 100 million in 2050. Data as quoted by Rainer Lindner, *Russlands defekte Demographie. Zukunftsrisiken als Kooperationschance*, Berlin: Stiftung Wissenschaft und Politik, SWP-Studie, No. 11 (March 2008), p. 7.

⁹⁴ Keir Giles, *Where Have All the Soldiers Gone? Russia’s Military Plans versus Demographic Reality*, Watchfield, Swindon: Defence Academy of the United Kingdom, Conflict Studies Research Centre, October 2006 (Russian Series 06/47), p. 2, www.

da.mod.uk/publications/sfpublications/atct_topic_view?b_start:int=200&C=.

⁹⁵ “Russian General Staff Gives Update on Spring Draft, Contract Service,” *BBC Monitoring Global Newswire – Former Soviet Union Political File*, July 22, 2009; “Russia to Draft 320,000 Conscripts in Fall 2009 – General Staff,” *RIA Novosti*, July 21, 2009, http://en.rian.ru/military_news/20090721/155574775-print.html.

⁹⁶ Giles, *Where Have All the Soldiers Gone?* [op. cit., fn. 94]; see also Hannes Adomeit, “Russlands Militär- und Sicherheitspolitik unter Putin und Medwedjew,” *Österreichische Militärzeitschrift*, No. 3 (2009), pp. 283–292.

⁹⁷ Nikolai Poroskov, “Khodka v armiiu. V Rossii snova aktivno prizyvaiut na sluzhbu rekrutov s ugovol’nym proshlym” [Quickly to the Army. In Russia, Recruits with a Criminal Record Are Again Being Inducted], *Vremya*, July 8, 2009, www.vremya.ru/2009/119/4/232672.html.

forces quantitatively but also qualitatively and one that will grow in importance.

Stagnation and Decay of the Military Industry

Answers to the question as to whether it will be possible to arrest and turn back the decline of the Russian armed forces in part depend on the ability of the military-industrial complex for innovative research and development and the production of modern weapons. In conjunction with the collapse of the Soviet Union, the Russian defense industry entered a period of deep crisis from which it still has not recovered. The military industry still comprises about 1,700 enterprises and 1.5 million employees and, therefore, is one of the biggest in the world. It is, however, not in a position to develop all the modern weapons and equipment needed by the armed forces or to produce them on time.

A first major reason for this is the bad material and financial situation of many military-industrial enterprises. For the most part, the machine tools for weapons production were built in the Soviet era and many of supply chains of that era were ruptured after the dissolution of the USSR.⁹⁸ As a result of lacking reform and the collapse of demand in the 1990s, only very few enterprises were able to invest in new technology. In 2007, only 37% of the military-industrial enterprises were estimated to be in good shape economically but 23% stood at the brink of bankruptcy.⁹⁹ As the global financial and economic crisis hit Russia, in order to safeguard the survival of crucially important military-industrial enterprises, the Russian government felt obliged to tie an anti-crisis package for them in the amount of \$1.5 billion.¹⁰⁰ The existing problems perennially lead to gaps in the quality and delays in the delivery of weapons. This can be demonstrated, for instance, by reference to the 34 MiG-29 fighter aircraft destined for export to Algeria. The projected recipient country rejected the first batch of aircraft complaining that the planes had incorporated used and even

rusty components. In order not to damage the reputation of the defense industry, Moscow retracted the faulty planes and transferred them to its own air force.¹⁰¹

The second problem consists in over-aged personnel and a work culture that, as in the Soviet era, tends to reward the execution of instructions rather than private initiative.¹⁰² That phenomenon, in turn, acts like a brake on innovation. Several modernization projects have been undertaken, as mentioned, but their major proportion consists in the improvement of existing weapons systems or the continuation of research and development work begun in the Soviet era.¹⁰³ This has the effect that the armed forces will be equipped with what the defense industry is able to produce rather than with what they need. This applies above all to the realm of conventional weapons where the main bulk of production appears to be more suited to a mass mobilization army with weapons that ordinary conscripts can easily handle rather than high technology forces. Indeed, innovation in the high technology sector is the exception rather than the rule. For instance, at the beginning of 2009, the Russian defense ministry felt obliged to purchase UAVs in Israel since its own military industry was unable to offer reliable models for serial production.¹⁰⁴ It is likely, therefore, that the Russian military-industrial complex will continue to lose ground to military-technological developments in Western industrialized countries.

Unclear Demand Profile

Whether Russia's armed forces will manage to overcome the current crisis depends, in addition to financing and technological innovation, on the existence of a clear demand profile. It is only if such a profile were to be developed that the financial resources could

101 Ivan Konovalov, "Alzhirskie 'MiGi' vernulis' v rossiskie VVS" [The Algerian 'MiGs' Return to the Russian Air Force], *Kommersant*, February 11, 2009.

102 Bjelakovic, "Russian Military Procurement" [op. cit., fn. 99], p. 535.

103 This applies to many of the nuclear show projects such as the Topol-M missile or the strategic submarines of the Borey class as well as to a large part of the conventional arms projects. In the navy, above all, only projects begun in the Soviet era are being carried out.

104 Ivan Konovalov, "Minoborony vooruzhitsia inostrannymi bezpilotnikami" [The Defense Ministry Is Equipping Itself with Foreign Unmanned Aerial Vehicles], *Kommersant*, February 24, 2009.

98 Vitaly V. Shlykov, "The Economics of Defense in Russia and the Legacy of Structural Militarization," in: Steven E. Miller and Dimitri V. Trenin (eds.), *The Russian Military. Power and Policy* (Cambridge, MA, 2004), p. 161.

99 Nebojsa Bjelakovic, "Russian Military Procurement. Putin's Impact on Decision-making and Budgeting," *Journal of Slavic Military Studies*, Vol. 21, No. 3 (2008), p. 535.

100 "Russian Defence Industry to Get 1.5 bn Dollar in Loans - Minister," *Zvezda TV*, February 26, 2009.

sensibly be utilized and significant improvements in the armed forces achieved. This requires, however, that the political and military leadership, basing itself on the existing security environment, provide a realistic assessment of threat. Second, in the allocation of means, both the potential and the limitations of the resource base of the country would have to be taken into account.

A clear demand profile, however, thus far has not been developed. The reasons for this are connected, first, with the fact that there is no consensus in the leadership about the actual or potential threats Russia is facing and how to deal with them. By and large, two schools of thought can be distinguished. The first, to which many high-ranking military officers belong, continues to insist that the main threat to Russian national security is a large-scale inter-state conflict. In accordance with that perspective, NATO and the United States are regarded as the main threats. Just like in the Soviet era, they are considered to be expansionist, striving for military preponderance and bent on driving Russia out of its traditional spheres of interest.¹⁰⁵ At the same time, even though less frequently, the adherents of this school of thought discern dangers emanating from “developing countries that possess well equipped, combat-ready and well trained armed forces.”¹⁰⁶ This obviously refers to China that has for a number of years carried out military modernization programs in both the conventional and nuclear arms sphere. Although the representatives of this traditional school do not deny that Russia is facing new security threats as a result of the end of the Cold War, such as the proliferation of the weapons of mass destruction, terrorism or the escalation of local conflicts, these are considered to be of a lesser danger for Russian national security. The consequence of such perspectives is that Russia still had to possess capabilities for conducting a large-scale inter-state war. The attendant insistence on the necessity to retain a mass mobilization army of the traditional type is rooted not only in outmoded stereotypes but constitutes a response to strong bureaucratic

105 M. A. Gareev, “Struktura i osnovnoe sodержanie novoj voennoi doktriny Rossii” [Structure and Basic Content of Russia’s New Military Doctrine], *Voennaja mysl’*, No. 3 (2007), pp. 2–13.

106 Iu. N. Baluevskii, “Teoreticheskie i metodologicheskie osnovy formirovaniia voennoi doktriny Rossiiskoj Federatsii” [Theoretical and Methodological Foundations for the Elaboration of Russia’s Military Doctrine], *Voennaia mysl’*, No. 3 (2007), pp. 14–21.

interests. Obviously, demands for more financial resources and retention of an officers’ corps that makes up 30% of the total strength of the armed forces can be justified more convincingly if the danger of a large-scale war is accepted as a realistic scenario.

The adherents of the second school of thought, the majority of which are to be found in the political rather than the military leadership, also leave out no opportunity to decry United States “unilateralism” and the eastwards enlargement of NATO. However, they posit a direct military confrontation to be improbable. Their threat assessments are focused instead primarily on local and regional conflicts at Russia’s troubled southern borders and transnational security threats such as terrorism, proliferation of weapons of mass destruction and uncontrolled migration. Indeed, on post-Soviet space, there is a risk that ethnic, territorial, political and economic conflicts could escalate and negatively affect stability in Russia. This applies in particular to the northern Caucasus where explosions, attacks and armed clashes are an almost daily occurrence. The demand profile that the protagonists of the second school of thought derive from this for the armed forces, therefore, is quite different from that of the first school. The army, in their view, should be able rapidly to react to risks of escalation of local and regional conflict and to conduct peacekeeping, peace enforcement and anti-terror operations. In December 2008, defense minister Anatoly Serdyukov summarized these considerations when he declared that the main goal of military reform consisted in “creating a combat-ready, mobile and perfectly equipped army and navy capable of operating simultaneously in three regional and local conflicts.”¹⁰⁷ He failed to mention large-scale inter-state war which, from the perspective of the first school, should determine the structure of the armed forces.

Whether the reforms begun in autumn 2008 can be carried out, then, depends also on overcoming the resistance of conservative circles that exists above all in the military. Under presidents Yeltsin and Putin, innovation usually foundered on the bedrock of resistance of the military leadership. Serdyukov, the first defense minister in post-Soviet Russia who has made his career neither in the military nor in the secret

107 Viktor Litovkin, “Serdiukov peresmatrivaet strategiiu. Zjavleniia ministra o trech regional’nykh voinach trebuiut kompetentnykh raz’iasnenii” [Serdyukov Is Reviewing the Strategy: The Declaration of the Minister About Three Regional Wars Demands Authoritative Explanation], *Nezavisimaja gazeta*, December 23, 2008.

service, was able in June 2008 to remove the chief of staff, Yury Baluevsky, known for his adherence to the traditional school of thought. His successor, Nikolay Makarov, is regarded as being an advocate of the concept of mobile operational forces. For the first time in the post-Soviet era, therefore, the conflict between defense minister and chief of general staff that had perennially hindered military reform efforts, no longer exists. It still has not been possible, however, to break the resistance to reform in the military and to develop a coherent demand profile for the armed forces.

An example of this inability constitutes the new security strategy signed by president Medvedev in May 2009. As in previous such concepts and doctrines, threat assessments of both schools of thought peacefully coexist side by side without any indication of priorities. Thus, the chapter on “military threats” only refers to risks of conflict with United States and NATO. The main danger, it is stated, emanates from “a number of foreign states [that strive] for preponderance in the military area,” unilaterally want to create a global anti-missile defense system and militarize space. The corresponding section, however, is kept relatively short and occurs only after an enumeration of developments that could negatively affect Russia’s national interests. The enumeration primarily points to transnational dangers and to risks of escalation of local and regional conflicts.¹⁰⁸ It looks as if in that document “every section was formulated by a different bureaucracy.”¹⁰⁹ It is as yet unclear whether the new military doctrine that is expected to be published at the end of 2009 or the beginning of 2010, which is to replace the completely out of date doctrine of April 2000, will contain a more coherent demand profile.

Whereas the threat assessments of the political and military leadership differ, strong consensus exists between them concerning the question as to the place Russia should have in the international system. The country, so the common conviction, constituted a Great Power had to strengthen this status. Such attitudes, however, cloud rather than sharpen the focus on a consistent and coherent demand profile for the armed forces. The Great Power claims are at odds with the availability of material resources, that is, the weak economic and technological basis of the country. Russia, for this reason, is in danger of utilizing the

scarce resources for the stage-management of military grandeur rather than the acquisition of real military strength. This is shown by arms programs that envisage big projects with which to convey the notion of a global power position and existing capabilities for power projection. Examples of such projects are the modernization of strategic nuclear forces and the build-up of naval forces as is the talk about the possible establishment of military bases beyond the post-Soviet space and the construction of aircraft carriers.

The grand standing is problematic for two reasons. First, even if all modernization projects were to be carried out, Russia’s status still would not be on a par with that of the United States. Second, the stage-management of “greatness” contributes nothing to solving possible local and regional conflicts at Russia’s southern borders. Russia’s leadership, therefore, is yet to formulate a clear demand profile for the armed forces that would take into account the country’s available resources.

¹⁰⁸ “Strategiia natsional’noi bezopasnosti” [*op. cit.*, fn. 2].

¹⁰⁹ Hans-Henning Schröder, “Ein strategisches Sammelurium. Medwedews ‘Strategie für die nationale Sicherheit Russlands bis zum Jahre 2020,’” *Russlandanalysen*, No. 186 (July 3, 2009), p. 10.

Conclusions

The absence of reform for sixteen long years has left its mark on the Russian armed forces. “Great Power” ambitions and actual capabilities continue to diverge, in some areas dramatically as, for instance, in conventional weapons. Increased defense expenditures since the turn of the millennium have meant that arms programs that had been shelved, have been resumed and new ones started. There has been some success in the resulting modernization such as the Iskander short-range missile and the anti-aircraft system S-400. This, however, cannot obviate the fact that about 90% of Russia’s conventional arsenal consists of over-age or badly serviced weapons and equipment. In high technology weapons and information systems, above all, the country is unable successfully to compete with the United States and other Western countries in military research, development and production. The war in Georgia demonstrated that its army has not succeeded in managing the necessary transition from the industrial age to the information age. Apart from unsatisfactory arms and equipment, Russia’s conventional forces also suffer from inadequate combat readiness. Since the turn of the millennium, ever more and more complex and longer lasting military maneuvers have taken place. The level of training of the Russian soldier, however, generally continues to be low. This is due mainly to the chronic lack of adequate financing for the armed forces and to deficits in military leadership.

The war in Georgia also served as a catalyst for another attempt at unblocking military reforms stalled since the Yeltsin era. On October 14, 2008, defense minister Serdyukov announced corresponding plans. Accordingly, 30% of the conventional weapons and equipment are to be modernized by 2015, and 70% of the weapons by 2020. The plans, moreover, envisage changes in the organizational and command and control structures of the armed forces. Thus, the cumbersome divisions are planned to be replaced by smaller and more mobile brigades, and the overall troop strength is to be reduced by more than one tenth to one million soldiers until the year 2016. The officers’ corps, bloated to a degree as nowhere else in the world, is to be cut by more than half but the

number of professional non-commissioned officers is to be increased substantially.

If the reform measures were to be carried out, they would, indeed, lead to a “new face” of the Russian armed forces, as envisaged by president Medvedev. It would finally mean abandonment of the Soviet model of a mass mobilization army preparing for a large-scale land war. The Russian armed forces would instead be better equipped and be able to operate more professionally and more rapidly. The reforms would transform them into a more efficient instrument for use in local and regional conflicts, anti-terror, peace enforcement and peacekeeping operations, and suppression of insurrections. Russia would thereby catch up with many of the developments that have taken place in the Western armed forces after the end of the Cold War.

What would be the consequences of Moscow’s military reform for security and the balance of power in Europe? Russian armed forces that are better prepared for peace enforcement and peacekeeping tasks could be an interesting partner for NATO and EU operations. Previous experiences, notably in Bosnia-Herzegovina (SFOR) and the Kosovo (KFOR), have demonstrated how much the different organizational culture, the bad state of training and the obsolete equipment of the Russian units can hamper effective cooperation in multinational operations. However, whether Russian military units would, in fact, participate in multinational missions would depend on two factors: available financial resources and the general state of relations between Russia and the West. Ostensibly because of the attendant costs, Moscow has thus far been hesitant to take part in operations outside the post-Soviet space. On the territory covered by the CIS, however, completely in line with its own understanding as being a Great Power, Russia has shown little inclination to open the peacekeeping operations it dominates to Western participation.

Seen against this background, the military reform efforts are obviously designed to strengthen Russia’s primacy in the CIS area. This objective would enhance a trend that can be observed since Putin’s second term in office: Russia wants to improve its capabilities for regional power projection and assert its claim to

leadership by economic means but also now militarily. This trend manifests itself in the establishment of military bases abroad but also in the war in Georgia, which Moscow apparently wants the other CIS member states to understand as a warning not to move closer to NATO and EU. Such policies reflect the very danger that Russia could attempt to implement its political agenda by a greater reliance on military means. If this were to be the case, the whole European security architecture could be destabilized. The war in Georgia after all demonstrated unambiguously how rapidly local conflicts can escalate to a serious international crisis. It should, therefore, be in the interest of the NATO countries to reinvigorate the CFE process. The aim of this effort would be to build confidence and avert an uncontrolled build-up of Russian military power in the CIS area. This applies even more strongly considering that it is not only Moscow that has increased military expenditures but that the whole post-Soviet space is an area with the highest growth rates of defense budgets world wide.

Implementation of the planned reforms, however, would not fundamentally alter the qualitative and quantitative superiority of NATO. Russia, moreover, would not be able as a result substantially to strengthen its capabilities for global power projection. Its resource base clearly defines Russia as a regional power. This is independent of the stage-management of military grandeur which is meant above all to lend credence to the Kremlin's Great Power claims and, if possible, to extract political concessions from NATO countries.

How big are the chances that Medvedev's military reform and modernization program will be carried out? It is likely that implementation will occur quickly in some areas. That applies to the reduction of the overall size of the armed forces and replacement of divisions by brigades for the simple reason that not much money needs to be spent for these purposes. Considerable skepticism, however, is warranted concerning the stated objective of increasing the stock of modern weapons for the conventional forces to 70% of the total by the year 2020.

Further doubt as to the overall success of the military reform effort in the conventional area is nourished, first, by the enormous modernization requirements. In order to cover the needs of the conventional forces, they would either have to be cut more substantially or the defense budget would have to be increased massively. The latter, however, would put in jeopardy economic and social modernization projects.

Not least because of the current financial and economic crisis, Putin and Medvedev are hardly likely to adopt the latter course of action so as not to put at risk their standing as guarantors of economic welfare and social stability. Second, implementation of the military modernization plans is doubtful also because of the condition of the arms industry which is not in a position to produce the weapons needed by the armed forces within a reasonable time frame and in sufficient quantity. This is true in particular for high technology weapons.

Third, the current military reform efforts in the conventional area, just like previous attempts, suffer from the fact that no coherent demand profile for the armed forces has been developed. Particularly among the military, Soviet-era stereotypes about NATO and the United States constituting the main threat to Russian security are still extant. This perspective is being used to justify demands for the retention of a mass mobilization army. Political leaders for the most part, contrary to that, argue that the Russian armed forces should prepare primarily for operations in local and regional conflicts and be able to react effectively to asymmetric threats at Russia's troubled southern borders. As long as these opposed schools of thought coexist side by side, the scarce financial resources will hardly be spent efficiently for the modernization of the conventional armed forces.

Fourth, the nuclear forces continue to be accorded priority in the allocation of resources. This is due to considerations of status and prestige. The nuclear weapons arsenal, after all, constitutes Russia's last remaining military Great Power attribute. In addition, as a result of the relative weakness of the conventional armed forces, nuclear weapons have assumed greater importance. This creates a vicious circle: If the nuclear forces continue to receive preference in the allocation of resources because the conventional forces are comparatively weak, the latter will continue to remain weak.

The modernization efforts of nuclear weapons are also meant to counteract their shrinkage due to obsolescence. The efforts are designed to make sure that Russia possesses a sufficiently large and modern panoply of offensive weapons to overcome even a substantially expanded U.S. ballistic missile defense system. If the modernization projects were to be implemented and a new arms control agreement concluded to set lower ceilings than the ones agreed upon in SORT, Russia would be able also in the foreseeable future to maintain rough strategic parity with the

United States. If, however, the deployment of the Bulava SLBM, that is, the planned new sea-based pillar of its nuclear triad, were to fail, Moscow's strategic nuclear posture would, in the medium-term perspective, be significantly weakened. Russia would nevertheless be able to maintain reliable deterrence against large-scale conventional attack but the military-strategic parity it considers so important for its identity as a Great Power would be put at risk.

List of Abbreviations

ALCM	Air-Launched Cruise Missile
CFE	Conventional Forces in Europe
CIS	Commonwealth of Independent States
ICBM	Intercontinental Ballistic Missile
IISS	International Institute for Strategic Studies
MARV	Maneuverable Re-entry Vehicle
MIRV	Multiple Independently Targetable Re-entry Vehicle
SLBM	Sea-Launched Ballistic Missile
SORT	Strategic Offensive Reductions Treaty
SSBN	Ship Submersible Ballistic Nuclear
START	Strategic Arms Reduction Talks
UAV	Unmanned Aerial Vehicle
USSR	Union of Soviet Socialist Republics