The Letort Papers



A RUSSIAN VIEW ON LANDPOWER

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Keir Giles

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FOREWORD

In a time of rapid change for the U.S. Army, it is essential to retain awareness of how potential adversaries are also developing their concepts of Landpower. This Letort Paper, written by an influential Russian general, lays out an authoritative view on the importance of substantial conventional land forces, as seen from Moscow.

The year 2014 was an eventful one for the Russian military, opening with the seizure of Crimea, continuing through ongoing operations in and near Ukraine, and culminating with the issue of a new *Military Doctrine* reflecting what Russia describes as new security realities in Europe. All of these circumstances have drawn attention back to the challenge to U.S. interests posed by the Russian military. The issue of this Paper is therefore especially timely.

The author, Major General Aleksandr Rogovoy, is a professor at the Russian General Staff Academy with a substantial record of academic and operational experience, and a direct contributor to the drafting of Russia's 2014 *Military Doctrine*. An introduction to General Rogovoy's paper has been provided by noted British scholar of the Russian military, Mr. Keir Giles. This introduction provides essential context for the piece, as well as highlighting key areas that will be of particular interest to U.S. policymakers. Mr. Giles explains some of the fundamental assumptions guiding Russian thought in this area. Some of these will be familiar to U.S. military readers; others will be unrecognizable.

The Strategic Studies Institute is pleased to present this unique insight into the thinking and assump-

tions of the Russian military. It is recommended not only to decisionmakers considering responses to a newly assertive Russia, but also to planners developing the shape of the U.S. future land forces, and the challenges they may face.



DOUGLAS C. LOVELACE, JR.
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ABOUT THE AUTHORS

KEIR GILES is the director of the Conflict Studies Research Centre (CSRC), a group of deep subject matter experts on Eurasian security formerly attached to the United Kingdom (UK) Ministry of Defence. Now operating in the private sector, CSRC provides in-depth analysis on a wide range of security issues affecting Russia and its relations with overseas partners. After beginning his career working with paramilitary aviation in Russia and Ukraine immediately following the fall of the Soviet Union, Mr. Giles joined the BBC Monitoring Service (BBCM) to report on political and military affairs in the former Soviet space. While attached from BBCM to CSRC at the UK Defence Academy, he wrote and briefed for UK and North Atlantic Treaty Organization (NATO) government agencies on a wide range of Russian defense and security issues. Uniquely, he is a double Associate Fellow of the Royal Institute of International Affairs (Chatham House) in London, UK, as well as a regular contributor to research projects on Russian security issues in both the UK and Europe. Mr. Giles's work has appeared in a wide range of academic and military publications across Europe and in the United States.

ALEKSANDR V. ROGOVOY is a professor at the Russian Armed Forces' General Staff Military Academy (VAGSh), where he teaches on the Military Art faculty. He spent his conscript service in the Soviet Army in Germany, where, in addition to his normal duties, he was detailed to guard Rudolf Hess in Spandau Prison, Berlin. Selected for officer training, he graduated from the Higher Combined-Arms Command Academy in 1976 and returned to command positions in Germany.

From 1981-84, Major General Rogovoy attended the Frunze Military Academy, before continuing to more senior command positions in combined-arms units in the Kola Peninsula, Mongolia, Germany, and Moscow Military District. After completing VAGSh in 1995-97, Rogovoy commanded the "Special Division" of the Far Eastern Military District. In 2003, Major General Rogovoy joined the staff of VAGSh as a senior lecturer and was appointed Professor in 2010. He now combines teaching with academic research and practical involvement in the development of the Russian armed forces, including contributing to the drafting of the *2014 Military Doctrine* of the Russian Federation. Work already published or in preparation for the Russian armed forces includes the monographs "Preparation and Conduct of Peace Enforcement Operations," "Preparation and Conduct of Peace Support Operations," and "The Russian Approach to Counter-Terrorism." Each of these projects draws on his extensive operational experience, both within Russia and in a number of countries in Russia's near abroad, the Middle East and North Africa. Major General Rogovoy has taken part in a number of international cooperation projects on behalf of VAGSh, including repeated visits to the NATO School Oberammergau, NATO Defense College Rome, and the U.S. National Defense University.

SUMMARY

Russia's seizure of Crimea, and ongoing operations in eastern Ukraine, have refocused attention on the Russian military as a potential cause for concern in Europe. This Letort Paper, by an influential Russian general and military academic, lays out specifically Russian views on the essential nature of strong conventional land forces, and how they may be used. With an expert commentary providing essential context and interpretation, the paper presents a valuable insight into Russian military thinking, at a potentially critical juncture for European security.

The author, Major General Aleksandr Rogovoy, is a professor at the Russian General Staff Academy with a substantial record of academic and operational experience, including developing Russian doctrine on the use of the Armed Forces beyond Russia's borders. The commentary has been provided by British expert Keir Giles, who gives the context and background for General Rogovoy's paper, and highlights key areas of importance to a Western readership.

Moscow continues to place primary importance on conventional military force, with the direct intention of growing capability in order to challenge U.S. power. While the United States and other Western militaries are considering their future form after two decades of focus on counterinsurgency, for Russia the picture is different; strong emphasis on the enduring and central role of numerous conventional land forces remains unchallenged. This paper should assist U.S. and Western planners and decisionmakers by providing direct insight into resurgent Russia's military thinking.

A RUSSIAN VIEW ON LANDPOWER

Keir Giles

For any state, the purpose of investing in military power is to accomplish political goals. One of the basic tenets of realism is that the larger and more skilled the military, the more effectively the state can then deter the military power of another state and influence political decisionmaking. But for over a decade, this fundamental principle has been partially eclipsed for the United States and its allies as a result of principal threats arising from actors other than states. The result of this shift in priority for the U.S. military, to address the nonstate actor or terrorist threat, has been a calling into question of the need for a large Landpower force in times of stringent cuts to the military budget.

According to Janine Davidson, senior fellow for defense policy at the Council on Foreign Relations and former Deputy Assistant Secretary of Defense, "the U.S. military is at a crossroads" as the rebalancing in the 2014 *Quadrennial Defense Review* envisages a severe constriction in conventional ground forces, including a planned 20 percent reduction in the active component of the U.S. Army.[1] Meanwhile, however, competitors have continued to focus on direct military competition with adversary states. It follows that the strategic relevance of Landpower overall is not an assessment that the United States can make for itself, in isolation from the strategic environment as perceived by competitor nations with a distinctive land force posture of their own.

Russia is the prime example. Operations in Crimea and eastern Ukraine in early-2014 demonstrated the results of processes that had been ongoing in the Russian military and in Russian security thinking for

almost a decade,[2] as Moscow continues to place primary importance on conventional military force, with the direct intention of growing capability in order to challenge U.S. power.[3] Russia's new assertiveness, backed up by at least the semblance of a capable land-based military, caused widespread surprise outside a narrow expert community; but this should not lead anyone to believe that this was a new departure.

President Vladimir Putin had made no secret of driving change within Russia toward his ambition to reassert Russian power through the tried and tested means of military strength, as well as lip service to new notions of soft power more suited to a post-nationalist 21st century Europe. This led to consistent startling increases in military spending. These began not with the current high-profile rearmament program that attracted widespread attention abroad, but immediately when the Russian Federation first enjoyed a flow of disposable income as a result of rising oil prices in 2004-05. Efforts began at that point to improve conventional military capability, to supplement the nuclear deterrent that had been retained as an essential minimum guarantee of Russian sovereignty during the preceding decade of chronic military underspending and force reductions. Though the army is still much in need of improvement, and the current transformation project still faces significant challenges, Russia has proved both in Georgia in 2008 and Ukraine in 2014 that land force is a valid political tool to achieve foreign policy goals.

Ukraine in particular is a shining example of how the existence of a large land force can be effectively combined with aspects of irregular warfare to achieve these goals. Therefore, bold statements such as "there is no doubt that irregular warfare campaigns will be the norm rather than the exception in the future"[4]

should not be allowed to distract from the vital importance of maintaining sufficient land-based conventional force to act as a deterrent to behavior considered unacceptable in the current world order.

This is not the first time that military thinkers have predicted a growing marginalization and eventual irrelevance for Landpower. According to one review of U.S. planning options:

> When military aircraft gained widespread adoption in the 1920s, a new breed of thinkers (or false prophets, depending on what military service you are from) like General Billy Mitchell and General Giulio Douhet claimed that there would be no more need for old ground armies. Yet the need for "boots on the ground" lived on throughout the 20th century—just as it will live on into the 21st.[5]

It follows that conceptual approaches to deciding on future military capability must not take place in a planning vacuum, but needs to take account of the very different views of other significant military actors, who may be less than willing to fall in with the U.S. view of how military power ought to develop.

Views differ on the precise extent of improvements in Russian military capability that result from the unprecedented program of transformation since 2008. In this context, the distraction of operations in Crimea and eastern Ukraine in early-2014 is unhelpful; there, the main force Russian troops opposite the Ukrainian border were for much of the conflict irrelevant, and the special operations forces actually engaged should not be taken as representative of the condition of the Russian military overall.[6] Direct, although unavowed, involvement of Russian forces in combat in Ukraine later in 2014 gives a more helpful but still imperfect view of current capabilities.

Furthermore, transformation of the Russian armed forces, and declarations on the new Russian way of war—call it "hybrid," "nonlinear," "ambiguous," or any other of the recently coined epithets[7]—have done little to shift assumptions in Moscow on the primacy of nuclear or conventional brute force in safeguarding Russia's interests. Contrary to widespread assumptions, new approaches to achieving political aims through the use of the military do not, in fact, mean a new way for the Russian military as a whole to fight.[8] Transformation of the Russian armed forces is intended to ensure that those forces can hold their own in full-scale, high-intensity conflict, where a decisive role will be played by land forces.

There is no shortage of Russian policy statements and documents implying that a U.S. military presence in states neighboring Russia is a direct threat. *The Military Doctrine of the Russian Federation* 2010 was careful to describe the North Atlantic Treaty Organization (NATO) (and by extension, the United States) as a "military danger" rather than a threat, stipulating that it could become a direct threat if certain conditions were met.[9] The response by NATO to events in Ukraine arguably meets those conditions. It is reasonable to expect that the new version of the *Military Doctrine*, currently scheduled for release in December 2014,[10] will be markedly more hostile to the United States, whether through the proxy of NATO or directly. It should be ensured that plans to reduce the role and relevance of land forces within the U.S. military take this potential increase in hostility from a major land power into account. Given all of the aforementioned, the importance of closely examining the Russian view of the role of land forces in the modern military should be clear.

This Paper lays out one such Russian view. It is written by Major General Aleksandr Rogovoy, a professor at the Faculty of Military Art of the Russian General Staff Academy with an extensive history of both academic and operational service. His description of Russia's transformation efforts, with their emphasis on creating high-tech, modern, agile forces, will be familiar from other literature on the subject. But it is the emphasis on the enduring and central role of land forces that is of direct relevance here.

"Wars are fought for territory and resources. There is only one way of defending these two things, and that is the physical presence of ground forces," Rogovoy believes. Therefore, "All Russian forces operate solely in support of ground forces. They are not independent arms, merely facilitators."[11] This is sufficiently different from many Western assumptions that specific passages from Rogovoy's text should be given closer attention. The following quotations are taken from General Rogovoy's paper, the full text of which can be found on page 17 onward.

> The Russian Federation has found itself at the centre of radical geopolitical change, and has become the subject of increased interest and even territorial claims from other countries.

The notion that other states have designs on Russian territory is taken as a given among a broad range of senior Russian military and civilian officials. This includes a long list of supposed territorial disputes with Russia, some of which have long faded into history on the other side of the border. For example, a briefing on "Threats to the Military Security of the Russian Federation" given by former Chief of General Staff Sergey Makarov to the Academy of Military Sci-

ences in early-2011 began with a map slide showing these disputes along almost the entire European periphery of Russia—including such implausible ones as Germany wishing to reclaim Kaliningrad, or Finland, Karelia. The idea also includes the *idée fixe* that Russia is a rich and desirable country, whose natural resources present a tempting target for potential invaders. In effect, Russia projects its own history and principles onto foreign partners who have not the slightest desire to march on Moscow.

This "increased interest" introduces a long list of threats that the Russian military must counter. Many of these seem innocuous or improbable—but it must be remembered that they will be interpreted in Moscow in accordance with a Russian view of the world, which contains a hostile, irresponsible and aggressive NATO and United States. In this context, references to "deployment of groups of forces and systems with a view to launching a military attack on Russia or its allies," "military exercises with provocative aims," and changes to "the current balance of forces near the borders of the Russian Federation" all refer, in Russian eyes, to any enhancement of U.S. cooperation with European partners.

A further threat that, in the Russian view, merits a military response is "discrimination and the suppression of rights, freedoms and legitimate interests of Russian Federation citizens in foreign countries." This is by now a well-worn narrative in Russian motivations for aggressive action against neighbors, as demonstrated in both Georgia in 2008 and Ukraine in 2014, as well as consistent pressure against the Baltic States over the largely imaginary disadvantage notionally suffered by Russian speakers there. The fact that even if a problem did exist, use of military force to resolve it would be entirely at odds with international relations

between developed countries, is encapsulated in the "Bolzano/Bozen Recommendations on National Minorities in Inter-State Relations" adopted by the Organization for Security and Co-operation in Europe, and therefore endorsed by Russia, to govern precisely this kind of situation—in effect explaining that it is not Russia's place to interfere.[12]

These are not the only descriptions of threats that Rogovoy classes as meriting a military response contrary to all Western notions of what a country's armed forces are for. Among cross-border threats, he lists "information activities hostile towards Russia and its allies." This is especially topical in the current state of intense information warfare waged by Russia over events in Ukraine, but the language is borrowed from Russia's *Information Security Doctrine*, and therefore can be taken to extend to Russia's long-held and deep-seated suspicion of information transfer systems, including the Internet, and in particular social media. The consequences of conceptual mismatches between Russia and its neighbors such as these are that very close attention needs to be paid to precisely what Russia considers to be hostile action, which demands counteraction using military force.

> Peacekeeping has become a priority in the activities of the Russian Federation Armed Forces. It is a powerful tool in Russian foreign policy. The use of Russian troops in peacekeeping operations is one of the ways to protect the national interests of the Russian Federation and ensure its security.[13]

It is essential to note that translating the Russian word used here—*mirotvorcheskiy*—as "peacekeeping," while accepted as a standard translation, risks giving entirely the wrong impression of what Russia

intends for these troops. The Russian word is closer to "peace creation," and envisages a far more assertive and violent role than the Western concept of maintaining a peace that has already been achieved. After all, the Russian attack on Georgia in 2008 was referred to as an "operation to enforce peace on Georgia." In early-2014, foreign defense attachés in Moscow were treated to a demonstration of Russian "peacekeeping" training, and reported that instead of training in winning hearts and minds, what they saw was in effect an all-out high-intensity assault, with air support, on the location where peace was supposedly to be created.[14] Russian peacekeeping troops have also been created for overt political roles. In Rogovoy's words, Russia needs peacekeeping forces "because that's the only way you can move troops across another country's borders with a band playing and with everybody pleased to see them."[15]

Russia also has an entirely different attitude both to nuclear weapons, and to the prospect of their use, as alluded to in Rogovoy's note that "preserving the potential of the strategic deterrent forces" is the prime task of the Russian military. This theme has been explored in detail in a recent Strategic Studies Institute paper.[16] Another very distinctly Russian theme within the text is the reference to World War II (or the Great Patriotic War) as a relevant benchmark for modern force development.

But the main thrust of the Paper is to emphasize the centrality of Landpower to ensuring Russian national security:

> Given the vastness of Russia and the length of its land borders, it is obvious that it is simply impossible to safeguard the defence capability of the Russian state without extensive use of the Land Forces.

> Yes, they do it in cooperation with other armed services and service arms of the armed forces, but other armed services and branches of the armed forces tend to act in the interests of the Land Forces.
>
> Some military theorists (mostly supporters of the idea of so-called "contactless wars"), who do not properly evaluate the trends outlined above, have begun increasingly to claim a reduction in the role of the Land Forces, which, in their opinion, will in the wars of the future decide only auxiliary tasks. In my view, these assertions are absolutely groundless.[17]

In this context, Rogovoy refers to experience in Chechnya (referred to in the official Russian formulation of "the antiterrorist operation in the North Caucasus") and Georgia ("the operation to enforce peace") to show that missile and air strikes can achieve a political aim by compelling an adversary to make concessions, but only the land forces can actually control territory, and therefore it is these which are essential in subduing opponents.

Rogovoy also highlights Russia's program to improve its capability of using long-range weapons:

> against the enemy in a way that does not require it to be engaged in close-in combat. They are missile systems, air defence missile systems, multiple-launch rocket systems, long-range artillery guns that can fire precision-guided munitions . . .[18]

This section is of particular topicality when considering cross-border influence and stand-off strikes and bombardments against Ukraine during mid-2014, in the absence of any overt incursion.

In an appendix entitled "Views of Foreign Military Analysts," Rogovoy holds a mirror to U.S. re-evaluations of the role of land forces, and of the threats that the U.S. Army must counter. The result is a fascinating "view from the side" on the current debate over force restructuring. It can be assumed that Rogovoy's views and assumptions are not that far removed from those of his colleagues developing specific plans relating to U.S. military power. As such, the appendix should also be examined closely, since it is indicative of how the U.S. debate, and its likely results, may be perceived by these planners.

CONCLUSIONS AND POLICY RECOMMENDATIONS

If the trajectory of increasing Russian budget and capability, and decreases in the budget and capability of European militaries, continue indefinitely, then obviously the two trends will eventually intersect and Russia will have achieved its goal of overmatching modern Western militaries. But Russia does not have to wait that long. A combination of the political will to use force, and a variety of other tools at Russia's disposal to influence target states, serve as force multipliers in Russian security calculus. It follows that in order to feel confident enough to mount a challenge to the United States, Russia does not need a large, powerful, modern force equivalent to that of the United States in every aspect of capability.

Russia under President Putin has shown, both in Syria and Ukraine, that only small and tangential amounts of actual applied military force are needed to accomplish their political goals. In Syria, the primary goal of preventing a U.S. military intervention

and regime change was achieved by a mix of hard, persistent diplomatic efforts and support for the Asad regime with money, weapons, and political protection in the United Nations (UN). In Ukraine, Moscow startled the world by moving mass amounts of its land forces quickly and effectively to the border with Ukraine. But in the early stages of the conflict, the main role of those forces was then to sit on the border, augmenting and depleting as required in order to focus the attention of the West like a hypnotist's watch, while only small groups of Russian special operations forces actually conducted warfare inside Ukraine. And yet, Putin is still accomplishing his goals: undermining the Petro Poroshenko government, keeping Ukraine within the Russian sphere of influence, portraying Russia to the domestic audience as a strong power successfully deterring U.S. ambition, and last but not least, sending a strong message to other states in Russia's vicinity not to step out of line.

At the same time, Ukraine also demonstrates another key facet of current Russian military policy; that of faking it till you make it. Some Western analysts are prone to the error of confusing Russian ability to conduct large-scale military exercises with an ability to actually wage large-scale war, with little assessment of how and whether those exercises actually result in improved combat capability. Russian military transformation remains a work in progress, and further capability improvements are to be expected. But in the meantime, the progress of the campaigns in Ukraine and Crimea show that Russia is already willing to make use of those parts of its land forces that have already reached an acceptable level of capability, even as the broad mass of those forces is still under par.

According to one view, the primary benefit accruing to Russia from the recent large scale exercises, over and above practicing the actual movement of troops, is propaganda and intimidation. This tallies with the role of the Russian troops opposite the border with eastern Ukraine, who initially facilitated Russian objectives simply by being there as a potential problem, rather than by actually doing anything. But the development path of Russian military capability overall has been clear for some time, and greater parts of that military will be considered ready for use as time passes. Two responses to this situation are essential; first, proper investment in the analytical capability to watch, understand, and predict Russia (and proper attention paid to the results of that analysis); and second, ensuring that land forces do not become sufficiently hollowed out to tip the balance of Russian security calculations in favor of challenging them.

The United States does not, as yet, suffer from the deficiencies in analytical capacity on Russia that plague partner nations such as the United Kingdom (UK).[19] Nonetheless, the degree of surprise which appears to have overtaken the United States not only at operations in Crimea, but at the Russian military's new capabilities as demonstrated in exercises throughout 2013, argues that the conclusions reached by that capacity are either flawed, or correct but not being passed high enough up the intelligence food chain to reach decisionmakers. The paths that led to the current condition and use of Russian Landpower were both long and well-signposted. This allowed scholars, even at the dawn of the Putin era, to place essential caveats on the development of relations with Russia,[20] and more recently, for warnings to be issued in 2013 on

the implications for Russia's neighbors of Moscow's development of its new military tool.[21] The manner in which Russia defends its perceived interests is sufficiently well-known, and Moscow's declaratory policy sufficiently pellucid, that after Georgia and now Ukraine, some form of Russian military intervention against NATO member states in the future should no longer be automatically discounted by forecasters.

There is no doubt irregular warfare has become a principal method of conflict in the 21st century. However, this should not lead to a reduced emphasis on the primary importance of maintaining sufficient conventional Landpower. As put in one Australian review:

> It may be that, in some cases, the pendulum has swung too far in favour of irregular warfare in terms of training and the development of concepts of operations. . . . A large military has the inherent capacity to train a certain part of the force to cater for the irregular aspects in the conduct of conflict while continuing to maintain a majority of the force oriented towards its *raison d'être*—the defence of the sovereignty of the nation against any and all attacks.[22]

A reduced size and capability of U.S. Landpower to respond to large conventional military threats inevitably reduces the risk element in another nation's calculus when considering using military force to achieve its political goals, thereby making this option more attractive. While a conventional land force attack on U.S. territory seems entirely unlikely, NATO nations are acutely aware that infringements of their sovereignty become increasingly probable as Russia continues its campaign of assertiveness in Eastern Europe. The result is that:

> There is an acknowledged need for armed forces within NATO and partner nations to change focus from insurgency-related operations back to more classic forms of state on state warfare. Land warfare tactics and operational art against modern but more traditional large scale troop formations need to be developed and trained.[23]

Regardless of the reluctance of some NATO allies to take an interest in funding their own defense, if the United States is to continue to safeguard its vital interests in Europe, it is essential to pay continued close attention to conventional Landpower. This is necessary to ensure the flexibility not only to respond to further highly likely adverse developments in European security, but also globally wherever the United States has interests and friends with land borders. In short, being prepared for irregular warfare is important, but maintaining sufficient Landpower to deter adversaries effectively is essential.

ENDNOTES - RUSSIAN VIEW ON LANDPOWER

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19. Highlighted in House of Commons Defence Committee report.

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DEVELOPMENT PROSPECTS FOR LAND FORCES

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The current stage of international development is characterized by acute socioeconomic conflicts and political differences. At the beginning of the 21st century, emerging processes suggest that the role that military force plays as the nations of the world seek to safeguard their political and economic interests is becoming greater. This means that a whole range of issues to do with both the main aspects of international security and the principles of the Russian Federation's national security have to be rethought.

In the third millennium, the Russian Federation has found itself at the center of radical geopolitical change and has become the subject of increased interest and even territorial claims from other countries. Russia's transformation into a strong economic and military power able to defend its own national interests independently is not to the taste of some countries, which remain committed to resolving various conflicts through the use of military force in breach of the rules of international law. Consequently, Russia's military security will be of crucial importance in the 21st century, too.

What is understood by military security is where society, the state, and its citizens are secure against external and internal threats associated with the use of military force or the threat of its use. Military security is the most important ingredient of Russia's national security. It is determined by the political situation of the country and the level of its defense capability. Military security presupposes that military threats and the

dynamics of their development must be ascertained. The Russian Federation Law "On Security" gives the following definition of "threats": "a set of conditions and factors that endanger the vital interests of the individual, society and state."[1]

Military force still plays a major role in the achievement of political goals by states and blocs of states:

- the range of conditions under which military force is used is expanding. The threat of nuclear and conventional large-scale war has receded somewhat, while at the same time the number of risks associated with the emergence of low-intensity armed conflicts has increased;
- new centers of economic and political power are emerging, and geopolitical competition for the redivision of spheres of influence is intensifying;
- the geographical expanse, which is potentially fraught with crisis, remains in place and is expanding (the Balkans, the Caucasus, Middle, Central and South Asia, and the Near and Middle East), the level of regional conflict potential in it on the basis of ethnicity, religion or crime is increasing, the trend is that the arms race is being renewed, and the danger of proliferation in precision-guided, conventional, nuclear and other weapons of mass destruction and their means of delivery exists in different regions; and,
- previous international and regional security mechanisms are losing their earlier effectiveness and cannot adequately respond to the rapidly changing strategic situation.

Analysis of the current global military-political situation in the world suggests that the starting point in assessing the level of military threat to Russia is that the role of military force in international relations in recent years has not diminished. Moreover, the military-political situation does not exclude the possibility that major armed conflicts affecting the security interests of the Russian Federation might arise near Russia's borders, or that a direct military threat to Russia's security might occur. National, including fundamental national interests, may be affected by a diverse range of threats that emerge as a result of particular developments in the military-political situation and that may take different forms, such as political, military-political, or the use of force. It can be said that in the current international situation, there are three types of threats to neutralize, which are to some extent a function of the Russian Federation Armed Forces: external, internal and cross-border. The main external military threats must include:

- deployment of groups of forces and systems with a view to launching a military attack on Russia or its allies;
- territorial claims against Russia, and the threat of political or military annexation of her territories;
- the pursuit by states, organizations and movements of programs to develop weapons of mass destruction;
- interference in the internal affairs of the Russian Federation by foreign states or by organizations supported by foreign states;
- demonstrations of military force near Russia's borders, and military exercises with provocative aims;

- the existence near the borders of the Russian Federation or the borders of its allies of epicenters of armed conflict that threaten its security;
- instability and weak state institutions in border countries;
- build-ups of troops in a way that upsets the current balance of forces near the borders of the Russian Federation or the borders of its allies and their adjacent territorial waters;
- expansion of military blocs and alliances to the detriment of the military security of the Russian Federation or its allies;
- the activities of international radical groups and the strengthening of Islamic extremism near the Russian border;
- deployment of foreign troops (without the consent of the Russian Federation and approval of the UN Security Council) in the territory of countries adjacent and friendly to the Russian Federation;
- armed provocations, including attacks on the Russian Federation's military facilities located on the territory of foreign states, as well as facilities and installations on the state border of the Russian Federation or the borders of its allies;
- action to prevent the work of Russian state and military control systems, the functioning of the strategic nuclear forces, missile attack warning, missile defense, space surveillance, and the combat sustainability of forces;
- actions that impede Russia's access to strategically important transport communications;
- discrimination and the suppression of rights, freedoms, and legitimate interests of Russian Federation citizens in foreign countries; and,

- proliferation of equipment, technologies, and components used in the manufacture of nuclear weapons and other weapons of mass destruction, as well as dual-use technologies that can be used to create weapons of mass destruction and their means of delivery.

The main internal military threats must include:

- attempts to change the constitutional order and the territorial integrity of Russia by force;
- planning, preparation, and implementation of actions to disrupt and disorganize the functioning of the institutions of state power and government, and attacks on vital government, economic, and military sites and information infrastructure;
- forming, equipping, training, and running of illegal armed groups;
- illegal distribution and circulation of weapons, ammunition, and explosives in the territory of the Russian Federation;
- large-scale organized criminal activities threatening political stability on the scale of a constituent part of the Russian Federation; and,
- the activities of separatist and radical religious and nationalist movements in the Russian Federation.

In recent times, cross-border threats have become more and more important for the military security of states. They include political, military-political, or use-of-force threats to the interests and security of the Russian Federation, which combine the features of both internal and external threats, and which, being of an internal nature in the forms they take, are in es-

sence external (in the sources of origin and initiation, possible participants, and so on). The significance of cross-border threats to the military security of the Russian Federation will have a tendency to increase. Such threats can include:

- creating, equipping, supporting, and training in other countries of armed groups with a view to transferring their activities to the territory of the Russian Federation or the territories of its allies;
- the subversive activities of separatist, ethnic, or religious extremist groups, directly or indirectly aimed at undermining the constitutional order in Russia, creating a threat to its territorial integrity and to the security of its citizens;
- cross-border crime, including smuggling and other illegal activities, on a scale threatening the military-political security of the Russian Federation or stability on the territory of its allies;
- information activities hostile towards Russia and its allies;
- the activities of international terrorist organizations; and,
- drug trafficking posing a threat that drugs might be trafficked to the territory of Russia or that its territory might be used as that of a transit country for drug trafficking to other countries.

Today, the level of military threat to Russia's security can be regarded as relatively low. None of the existing conflicts involving the use of force creates a direct military threat to its security. At the same time, in view of changes in the global geopolitical situation

in the world, we have to admit that to ensure Russia's security only through political opportunities (membership in international organizations, partnerships, opportunities to influence) is becoming impossible. Thus, to ensure military security, it is important to determine the nature of dangers and threats to national interests. This is the defining factor for the planning of organizational development of the military with military security in mind, since the exaggeration of threats leads to resources being unjustifiably diverted from other national priorities, while their understatement leads to distortions in military development and major errors that cannot be quickly remedied in a crisis situation. To ensure national security, a variety of methods, techniques, and tools can be used. Military force, however, still has a special place among them. It is the task of the armed forces to neutralize external threats, with internal and cross-border threats as part of it, that is put into practice in cooperation with other security structures and the appropriate authorities of the Russian Federation's allies. The Russian armed forces perform their tasks in accordance with the Constitution of the Russian Federation, federal laws of the Russian Federation in relation to defense and security, other state regulatory acts, and Russia's international commitments in strict compliance with international law. The main tasks of the armed forces in relation to the military security of the country include:

- strategic, mainly nuclear, deterrence of potential aggressors to deter them from waging war against Russia and its allies;
- if necessary, to back up the political actions of the state with the demonstration of force or a naval presence;

- reliable protection and defense of the state border of the Russian Federation, and to prevent the infiltration of its territory by armed groups;
- to maintain the composition and condition of the nuclear forces at a level that ensures the inevitability of nuclear retaliation against the aggressor in any situation; and,
- localization and neutralization of armed border conflicts by permanent-readiness troops (forces), and, in the event of an escalation, with the implementation of full or partial strategic deployment by the armed forces to repel the act of aggression and achieve the nominated military-political and military-strategic goals.

In today's environment, the objectives of the armed forces in the system of security in the Russian Federation are not limited just to matters of national defense. The need to use military force requires a broader framework. Peacekeeping has become a priority in the activities of the Russian Federation Armed Forces. It is a powerful tool in Russian foreign policy. The use of Russian troops in peacekeeping operations is one of the ways to protect the national interests of the Russian Federation and ensure its security. Modern Russian military planning, based on a realistic assessment of the Russian Federation's current resources and capabilities, assumes that the Russian armed forces must be able to:

- in peacetime and in emergencies, while maintaining strategic deterrence potential and fulfilling the tasks of maintaining combat readiness without additional mobilization activities, successfully accomplish missions simultaneously in two armed conflicts of any type, as well as

mount peacekeeping operations, both independently and as part of multinational forces;
- in the event of an escalation in the military-political and military-strategic situation, ensure strategic deployment of the Russian Federation Armed Forces and deter the escalation of the situation, through the strategic deterrence forces and the deployment of permanent-readiness forces; and,
- in wartime, with the available forces, defend against enemy aerospace attack and, following full-scale strategic deployment, be able to accomplish missions simultaneously in two local wars.

Proceeding from the tasks related to the ensuring of the Russian Federation's military security, the military-political leadership of the country has identified priorities for reform and strengthening of its armed forces now and in the foreseeable future. The main ones are:

- preserving the potential of the strategic deterrent forces;
- increasing the number of permanent-readiness formations and units, and forming force groupings on their basis;
- improving operational (combat) training of troops (forces);
- improving the system of manning the armed forces;
- implementing a program for the modernization of arms, military, and special equipment, and maintaining them in a combat-ready state;
- improving military science and education; and,
- improving the systems of indoctrination and moral and psychological training.

Currently, Russia is taking specific measures to modernize the armed forces. Its major focus is to maintain the strategic nuclear forces at a level that ensures guaranteed deterrence of aggression against the Russian Federation and its allies. Over the next 5 years, the plan is to increase significantly the degree to which the strategic nuclear forces are equipped with modern long-range aircraft, submarines and strategic missile troop launchers. Today, successful work is already underway to develop unique high-precision weapons systems and maneuverable warheads that have a trajectory that is unpredictable (so far as the potential adversary is concerned). Along with effective means to breach missile defenses, the new types of weapons allow what is one of the most important guarantees for lasting peace to be preserved—a strategic balance of forces. As part of the general-purpose forces, around 600 permanent-readiness units and formations have been mustered by 2013. In case of need, mobile and self-sufficient groups that will be underpinned by professionally trained permanent-readiness units and formations from the land forces can be quickly set up in any potentially dangerous sector.

In recent years, there has been a significant increase in the proportion of funds allocated for the development of the army and navy, over expenditure intended for their upkeep. All the measures towards the modernization of the armed forces being taken now and to be taken in the future should ultimately provide the Russian Federation with a capability adequately to respond to modern-day military threats to its security, guarantee protection against these threats and ensure territorial integrity.

Based on the foregoing, the following conclusions can be drawn:

1. Military security is one of the special types of security; and,

2. To ensure military security, it is necessary to have modern armed forces, and to form an effective system of collective security or global security.

The land forces play an important and often decisive role in the protection of the state. Has their present-day importance changed, given that the trend is towards an increase in the proportion of aerospace forces and systems? Indeed, the military role of aerospace has increased significantly over the past decade through the use of high-tech systems, especially for reconnaissance, communications, navigation, and long-range firepower. In the future, this trend will only grow.

It has to be said that the land forces have always played a vital role in the maintenance of Russia's military security and in the defense of its national interests. Russian military strategy, based on the fundamental assumption that victory can be achieved only through the joint efforts of all the services in the armed forces, ensured during the Great Patriotic War (World War II) that the strengths of each of them were put to the best possible use. However, since the hostilities with Nazi Germany took place primarily on land and the outcome of the war was decided in land battles, the main role in the warfare against an experienced, well-trained enemy army belonged to the land forces, which were the basis of the armed forces of the United Soviet Socialist Republics. During the war, their share in the battle strength of the armed forces ranged from 80 to 86 percent, while their total numerical strength at the beginning of 1945 increased by a factor of 2.2 compared to June 1941. Accordingly, the land forces

constituted the basis of strategic groupings and tackled all the major objectives assigned to the Red Army. Meanwhile, the groups of forces in the other armed services of the armed forces were used and operated mainly in support.

In the prewar years, Russian military science achieved considerable success in the development of military theory. This contributed to the fact that, during the war, the land forces, in conjunction with the other armed services of the armed forces and on the basis of the best theory of the deep offensive, prepared and brilliantly executed more than 50 operations by groups of fronts, around 250 front operations and multiple army ones.

The Great Patriotic War is rightly considered a "war of engines," so the success of the land forces in the decisive battles was largely due to the quantity and quality of the weapons and military equipment supplied to them. The experience of the Great Patriotic War shows that, even under extremely difficult wartime conditions, all the problems and challenges in the building and development of the land forces can be successfully solved. This requires a clear program of action, deliberate concentration of financial and logistical resources in key sectors, firm control over the process of reform, and efficient operation of the military-industrial complex. When these conditions are met, one can also expect success at this stage of the transformations aimed at the construction of modern land forces able to respond adequately to the threats and challenges of the 21st century.

In the years after World War II, the land forces were formally established as an armed service in the armed forces, when the Main Command of the land forces was created in 1946. Their subsequent develop-

ment was influenced by scientific and technological progress, which ensured that effective weapons and military equipment were developed to meet the ever greater demands of war. This enabled the land forces successfully to accomplish any missions to ensure the military security of our country.

However, the indisputable fact is that the earth's surface remains the main sphere of human activity today and will remain so in the foreseeable future, and military conflicts arise as a rule because of "earthly" problems: territorial disputes, striving to gain control over natural resources, redistribution of spheres of influence, or political, ideological, religious, and other differences. Given the vastness of Russia and the length of its land borders, it is obvious that it is simply impossible to safeguard the defense capability of the Russian state without extensive use of the land forces. They are a versatile and multifunctional armed service of the armed forces; their military formations are able to take control of areas and lines of defense and hold them for a long time in order to consolidate definitively their success.

The total length of the Russian Federation's borders is 60,932 km. Of these, 22,125 km are on land (including 7,616 km of lakes and rivers) and 38,807 km (about two-thirds) are at sea.

After the collapse of the Union of Soviet Socialist Republics (USSR), Russia has the following types of borders:

1. **Old frontiers** coincide with the frontiers of the former USSR (inherited from the USSR), most of which are fixed by international treaty:

- borders with states of the far abroad (Norway, Finland, Poland, China, Mongolia, and North Korea).



Map 1. Russian Territorial Borders.

2. **New borders** with the near abroad:
   - former administrative boundaries formalized as state borders with the Commonwealth of Independent States countries (the border with Belarus, Ukraine, Kazakhstan, Georgia, and Azerbaijan); and,
   - the borders with the Baltic countries (Estonia, Latvia, and Lithuania).

3. **The northern and eastern borders** of Russia are maritime (12 nautical miles).

4. **The western and southern borders** are mainly over land. The great length of Russia's state borders is the result of the size of its territory and the winding outline of the coastlines of the Arctic, Pacific, and Atlantic Oceans that surround its shores.

5. **Maritime borders** of Russia border 12 countries.

6. **The longest sea border** (19,724.1 kilometers [km]) runs along the coast of the Arctic Ocean; t**he longest land border** is with Kazakhstan, 7,591-km.

This country, with 60,000-km of land borders and surrounded on three sides by seas and oceans, must in addition to the four operational-strategic commands have the fifth, mobile operational-strategic command, which will enable it to give an all-sided response to threats and challenges both within the country and abroad. That is to say, as "territorial presence" forces, the land forces, in the present conditions too, continue to play a decisive role in the defeat of the enemy and the achievement of the objectives of military action. Yes, they do it in cooperation with other armed services and service arms of the armed forces, but other armed services and branches of the armed forces tend to act in the interests of the land forces.

Unfortunately, during the crisis of the 1990s, the capabilities of the land forces decreased somewhat, which was caused not only by a considerable reduction in their numerical strength, but also a substantial reduction in the rate at which modern weapons and military equipment were developed and supplied to the troops. It was at the same time that new trends in the changing nature and substance of warfare began to emerge, which were dictated by the increasing effectiveness of conventional weapons as well as the command and control and operational and combat support systems that were coming into service in the armies of the world's most developed nations.

First, precision-guided weapons and munitions based on artificial intelligence, as well as robotic systems and weapons whose operation is based on new physical principles, have been used more and more widely in the course of military operations. For example, during the war in Iraq (2003), the total number of guided munitions that were used to attack ground and air targets exceeded 15,000 rounds, which ac-

counted for 70 percent of the total. Compare that to the war against Iraq in 1991, when this figure was 9 percent; against Yugoslavia (1999), when it was 35 percent; and in Afghanistan (2001), where the figure was 69 percent.

Second, the proportion of aerospace forces and systems has increased, and conventional strategic weapons have come into play as the main weapon of war, providing direct strategic results. Thus, during the war against Iraq (2003), the United States used a constellation of 50-59 military satellites, 28 global positioning system satellites and a large number of commercial satellite communications and remote earth-sensing satellites in orbit. More than 1,000 combat aircraft were used to deliver massive air strikes. From March 20 to April 10, 2003, alone, they flew some 33,000 combat sorties, including 15,000 in support of the coalition forces' ground operation that followed.

Third, the spatial characteristics of warfare have expanded, since the increasing reach of current and future weapons allows powerful strikes to be delivered over the entire depth of the warring states' territory, with targets being hit not only consecutively but also simultaneously, which means that any region of the world may become a theatre of operations. All clashes and battles thus become dispersed, voluminous in nature, and cover warfare over all its dimensions; front, depth, and height.

Fourth, even greater importance in the wars of the 21st century has been accorded to the information component of warfare. This is because the troops are equipped with highly effective weapons systems based on the extensive use of information technology, as well as high-performance reconnaissance, communications, navigation, automated command and

control, electronic warfare, and other systems. In this context, achieving information superiority over the enemy becomes one of the basic conditions for the success of military operations. The role of information warfare in future wars increases accordingly.

Fifth, the temporal parameters of warfare have become "compressed" because of an increase in the rapidity of hostilities due to the fact that the collection, processing, and use of information about the enemy and the friendly troops is carried out in real or near-real time. The initial period of the wars of the future could become the main and decisive one, as the initiator of the war (the aggressor), especially one having technological superiority, will seek, with lightning speed and as soon as possible, to achieve its military-political objectives.

Sixth, highly maneuverable, mobile action by the troops with the use of all spheres of warfare and the need to preempt the enemy in combat (operations) dictate the transition from strictly vertical command and control linkages to global network-based automated command and control and weapons systems. This kind of transition involves setting up a unified information-exchange network linking decisionmakers and forces that ensures the necessary information about the situation is quickly brought to the attention of combatants, both superior and subordinate command and control agencies and neighbors on a "many-to-many" basis. In practice, the process of command and control over forces and systems is accelerated. The tempo of operations, the effectiveness with which the enemy is engaged, the survivability of the friendly forces, and the level of self-synchronization during warfare are also increased.

It should be noted that some military theorists (mostly supporters of the idea of so-called "contactless wars") who do not properly evaluate the trends outlined earlier increasingly have begun to claim a reduction in the role of the land forces, which, in their opinion, will in the wars of the future decide only auxiliary tasks. In my view, these assertions are absolutely groundless. Of course, if the purpose of military action is to force the government of the opponent to accept an externally imposed political solution, as was the case, for example, in Iraq (1991) and Yugoslavia (1999), its achievement will sometimes be possible if it is limited to massive missile and air strikes, even then provided that government has no answer to it: no modern aviation, air defenses, means for delivering powerful retaliatory strikes and so on.

But when the task is to seize or retake territory captured by the enemy or to repel a ground invasion by superior enemy forces, the land forces will have a decisive role. After all, the land forces have been and still are the only means to hold and control territory. No wonder they say that no territory can be considered conquered or liberated when no soldier has set foot on it. This was eloquently demonstrated by the experience of the antiterrorist operation in the North Caucasus and the operation to compel Georgia to make peace, during which it was simply impossible to achieve goals only through missile and air strikes, without immediate, active, and decisive action by the land forces. Certainly, in the course of modern wars and armed conflicts, there will occur independent, quite long stages in the warfare between the sides, the main focus of which will be to deliver preemptive, retaliatory, or launch-on-warning massive missile and air strikes and to wage electronic and other types of warfare over the entire depth of the enemy's territory.

The land forces, however, will take a very active part in this, as they also are armed with long-range high-precision weapons effective against the enemy in a way that does not require it to be engaged in close-in combat. They are missile systems, air defense missile systems, multiple-launch rocket systems, long-range artillery guns that can fire precision-guided munitions, anti-tank guided missiles, and electronic warfare systems, the quantity of which in the nomenclature of armament in the land forces has been growing steadily. Therefore, this is not about the reduction of the role of the land forces in modern warfare, but about the need to increase the share of advanced high-performance long-range high-precision weapons and "smart weapons" in the nomenclature of their armament, and that is one of the priorities in their development at this stage. The fact that the role of the land forces has not been reduced is in particular borne out by the new *Military Doctrine* of the Russian Federation, which defines the main tasks of the armed forces in relation to the military security of the state. Analysis shows that success in the accomplishment of the vast majority of them can be achieved with the dominant role of the land forces. First and foremost, this is:

- protection of the sovereignty, territorial integrity, and inviolability of the territory of the Russian Federation;
- containment and prevention of military conflicts;
- preparation and conduct of operations to repel an enemy ground invasion, defeat the troops or forces of the aggressor, and force it to cease hostilities on favorable terms;
- prevention, containment, and resolution of cross-border and internal armed conflicts;
- the fight against terrorism;

- maintenance of martial law or state of emergency; preparation and conduct of territorial defense;
- forming up, preparing and dispatching strategic reserves to their destination;
- support for strategic regroupings of troops;
- replacement of losses;
- security and peacekeeping operations (or operations to restore peace/security); and,
- measures to prevent or eliminate a threat to peace, suppression of acts of aggression, or breach of peace on the basis of United Nations Security Council resolutions, and many others.

Besides this, the military formations of the Russian land forces now constitute the basis of the Collective Rapid Reaction Forces, established under the Collective Security Treaty Organization, and are always on standby to honor Russia's allied commitments in accordance with international treaties. Therefore, we are convinced that in the foreseeable future the land forces will retain a key role in ensuring Russia's military security, as their military formations will continue to form the basis of groups of troops and forces in strategic sectors. In these cases, the structure, equipment and level of training of the land forces must ensure their capability to conduct successfully active warfare under any scenario for the outbreak of wars and armed conflicts with any possible adversary, be it the regular army of one of the world's most developed nations or irregular forces from international terrorist organizations.

In order for the land forces fully to suit their purpose, as well as for them to be able to deal with the trends that emerge in the changing nature and content

of warfare in the long term, a wide range of activities are currently under way aimed at their construction and development. The aim of these transformations is to create fundamentally new highly mobile formations, military units, and command and control agencies in an efficient structure of organization and establishment, equipped with modern weapons, military and special equipment, highly field-trained and able, in collaboration with the forces and formations of other armed services and service arms in the Russian Federation armed forces, to guarantee the accomplishment of the mission to ensure the military security of the state.

To date, much has already been done, particularly concerning improving the structure of the land forces:

- permanent-readiness brigades have replaced divisions;
- a more streamlined three-tier command and control system (military district, operational command, brigade) has been adopted;
- the network of military educational institutions has been optimized;
- a mixed system of manning (contract personnel and conscripts) has been adopted; and,
- the training of professional noncommissioned officers has been organized.

Much is still being done, especially regarding the re-equipment of the land forces' formations and units with modern models of weapons, military, and special equipment as part of the State Armaments Program for 2011-20, the training of personnel to operate them, improving the processes of command and control as a unified automated command and control system for the troops and weapons at the tactical level

enters service, raising the effectiveness and quality of combat training, and the search for advanced forms and methods of warfare.

The most important focus is now on the development of an operational and tactical-level reconnaissance system, providing a comprehensive view of the entire zone of imminent hostilities over the entire combat-mission depth (within weapons range) in any situation using intelligence from space and air reconnaissance systems. The main way to increase the effectiveness of reconnaissance is, in our opinion, for the combined-arms formations to be equipped with unmanned aerial vehicle (UAV) systems. They must be highly survivable, mobile, multifunctional, capable of helicopter-like flight patterns (vertical takeoff and landing, hover), and of day-and-night and all-weather use from unprepared sites or directly from the transporter vehicle. Meanwhile, the equipment mounted on a UAV must enable the necessary information about the enemy to be obtained quickly, in real-time or near-real-time, with the indication of the exact coordinates of targets in the dynamic, rapidly changing environment of modern combined-arms combat. The effectiveness of UAV use can be maximized if they are on the combat strength of combined-arms formations in the land forces (formations in the service arms and special troops of the land forces). As they independently control the UAV, combined-arms commanders can bypass intermediate instances to obtain the intelligence they need directly from it and quickly put it to use in order to achieve their combat objectives. Another important aspect is to build an effective command and control system on the basis primarily of a unified automated command and control system for the tactical level to integrate the functions of com-

mand, control, reconnaissance, communications and navigation. Its implementation should improve the combat effectiveness of the formations and units by not less than 50 percent, as the complete information picture of the battlefield is formed for the appropriate commanders in real time, as the command and control cycle is shortened by a factor of two to three, and the level of automation is brought to that of a single soldier or weapon.

It is impossible to improve the effectiveness of the command and control system without improving communications, to make them high-speed, high-bandwidth, stable, reliable and secure. These kinds of systems should be designed based on digital signal processing techniques using modern technology. In the process, it is important to achieve a significant increase in uptime and reduce the weight and size of radio systems, as well as to develop them with possible interservice application in mind. Navigation support of warfare is equally important in the present-day environment. It should be developed both based on the earliest introduction of the GLONASS (global navigation satellite) system and the provision of the land forces with associated onboard and wearable receivers, and through the development of other reliable autonomous sources that can highly accurately determine the current location of objects.

It is impossible to counter the enemy as it organizes command and control and the interaction of its firepower and reconnaissance assets in a single information and telecommunications environment, without widespread use of electronic warfare. The main focus in this aspect should be on the development of operational and tactical-level systems that provide for the guaranteed accomplishment of objectives such as the jamming of enemy reconnaissance and target indica-

tion radar systems, both ground-based and air-based, and its latest digital communications and information exchange systems, as well as robust electronic defense for our own troops.

Moreover, even now it is advisable to make an effort to develop advanced electronic weapons—electronic warfare systems based on new physical principles. Integrated development of reconnaissance, communications, navigation, identification and electronic warfare systems and their deep integration on the basis of automated command and control systems will allow, in the opinion of experts, a unified system of intelligence and information support for the land forces to be created, which will significantly improve the effectiveness of combat operations in an information warfare environment. As for firepower, the fact is that, as mentioned earlier, the aim of their development should be to equip the land forces with highly efficient, long-range high-precision weapons and ammunition that make for dependable firepower to engage the enemy deep in the zones for which the groups of forces or troops are responsible in a strategic direction up to 500-km; at the level of operational commands between 150-170-km; and at brigade level 50-70-km. Along with this, due attention should be given to improving the rate of fire of rocket and artillery systems, the yield and armor piercing capability of ammunition, the working conditions of crews, survivability, automation of processes to prepare for fire and to fire, and the capability quickly to replenish ammunition. The saturation of the land forces with high-precision weapons that are used in a single reconnaissance and information environment will allow combined-arms formations in the future to act as reconnaissance and strike systems that provide the capability to gain and

maintain information and fire superiority over the enemy in a timely fashion, and, under favorable conditions, its defeat in the initial or subsequent phases of military conflict on any scale.

It follows from this that the main requirement for the development and production of weapons and military equipment for the land forces is to provide not just separate, albeit very effective, models but complete functional systems which, along with weapons systems, include appropriate support systems: reconnaissance, communications, navigation, automated command and control, camouflage and concealment, electronic and information warfare, integrated protection, identification and others, up to and including training simulators. In our view, only this approach will be able to bring the level of equipment in the land forces to a whole new level, to match the nature and content of modern warfare. Thus, the land forces continue to play a significant role in Russia's military security. The ongoing set of activities aimed at their development should lead to a substantial increase in the combat capabilities of military formations and the development of advanced forms and methods of warfare.

The earth's surface is still the main sphere of human activity today and will be for the foreseeable future. Military conflicts arise as a rule because of "earthly" problems: territorial disputes; striving to gain control over natural resources; redistribution of spheres of influence; or political, ideological, religious, and other differences. Given the vastness of Russia and the length of its land borders, it is obvious that it is simply impossible to safeguard the defense capability of the Russian state without extensive use of the land forces. They are a versatile and multifunc-

tional armed service of the armed forces; their military formations are able to take control of areas and lines of defense and hold them for a long time in order to consolidate their success definitively. That is to say, as "territorial presence" forces, the land forces continue to play a decisive role in the defeat of the enemy and the achievement of the objectives of military action even under today's new conditions. Yes, they do it in cooperation with other armed services and service arms of the armed forces, but other armed services and service arms of the armed forces tend to act in the interests of the land forces.

ENDNOTE - DEVELOPMENT PROSPECTS FOR LAND FORCES

1. "Федеральный закон Российской Федерации от 28 декабря 2010 г. N 390-ФЗ "О безопасности'" (Federal Law of the Russian Federation No. 390-FZ of December 28, 2010), available at *www.rg.ru/2010/12/29/bezopasnost-dok.html*.

DEVELOPMENT PROSPECTS FOR LAND FORCES

APPENDIX

VIEWS OF FOREIGN MILITARY ANALYSTS

The American commanders have in recent years significantly re-evaluated the role of the land forces in any future war and consider them one of the most important armed services of the armed forces, as only they can close in with the enemy and engage it in combat or an operation, and capture and hold important strategic areas. Therefore, all-sided action is being taken to enhance their combat capabilities, firepower and strike capability, and mobility and maneuverability on the battlefield, for which they are being supplied with the most advanced weapons and military equipment, the structure of their formations is being improved, and new principles of their operational use are being developed.

The U.S. command attaches special importance to helicopter gunships, intended to engage mobile armored targets, especially tanks. Serious attention is being accorded to the modernization of anti-tank helicopter subunits as part of the U.S. Army in Europe. In the experience of military exercises, helicopters can destroy tanks from low altitude at ranges of up to 5 kilometers (km), with a ratio of up to 15:1 between tanks and helicopters destroyed. According to foreign experts, at this ratio of losses the available quantity of American helicopter gunships in Europe is, it is said, equivalent to having 3,500 tanks.

In the view of the leading American experts from the Strategic Studies Institute at the U.S. Army War College, in the 21st century the land forces have an

important place in the structure of the armed forces. Studies by the combat training command of this armed service under the special project "Land Forces of the Future" have four main elements: the likely geopolitical changes and realities, the behavior of people and organizations, the development of the art of war, and the impact of technological progress. Experts believe that the main goal of the United States, which is the only nation involved in nearly all of the affairs of other nations throughout the globe, is to get the most out of peaceful coexistence and to minimize periods of armed conflict. In the opinion of the American leadership, a key role in bringing this about belongs to the Army, whose further development is grounded on a number of external and internal factors. The former include:

- weapons of mass destruction and high-tech proliferation, which increase the potential of ambitious leaders and groups;
- the use of terrorism by states to achieve national objectives;
- an increase in the number of transnational challenges and the growing integration of the international community;
- the cyclical nature of development, with alternating periods of violence and relative stability;
- the general instability of the situation in the medium-development and underdeveloped countries, aggravated by possible tensions between highly developed nations; and,
- the formation, under the influence of growing international integration, of different communities and national enclaves within states, that will require extra efforts in order to secure their support for U.S. military action.

The internal factors that will affect the development of the land forces, according to U.S. experts, include the following:

- changing attitudes among the American public to threats to U.S. national interests as much reduced and insignificant; and,
- the negative attitude of the political leaders and public opinion to lengthy or costly military operations except when U.S. national interests are under threat.

According to American experts, several problems will have to be solved in order to select the optimal strategy for the development of the land forces in view of the factors noted earlier. First, the modernization strategy to be chosen will have to be of the kind that will minimize the risks associated with a variety of threats. This implies that if the international situation is relatively favorable, the land forces will be able to expend a minimum amount of resources on long-term modernization and development. If, on the other hand, the world will be dominated by conflicts, the United States should focus on rapid development and modernization of its land forces. The country's current strategy should, according to analysts, be adjusted somewhat to reflect the threats likely to occur soon.

Second, the combat effectiveness of the land forces needs to be maximized, as they remain relatively small in number and have to perform major large-scale tasks. One way to increase their effectiveness is to form international coalitions. Another is through the introduction of new technologies. The latter assumes greater return, but also requires significant financial investment. In addition, as noted by military experts, staking on the widespread use of tech-

nological innovations is fraught with negative consequences. In particular, it can lead to existing high-cost technology being prematurely retired. It is also possible that the probable adversary could find cheaper countermeasures.

Third, the land forces will have to decide whether the conduct of war is their sole function or just one of many (albeit the most important). The boundaries that have been drawn historically for the use of the army could be expanded as the concept of national security changes. Today, it includes the protection of national assets and information systems, the environment and public health. The view of American researchers, however, is that it is necessary for the leadership of the land forces to decide whether to take on new tasks or to focus on one or two of them and to delegate the rest to other agencies.

Fourth, the further development of the land forces requires public support, which will allow funding to continue at the appropriate level, as well as the required number of personnel to be maintained. In this context, the command will have to constantly and persistently explain the importance of the land forces and their role in curbing violence, protection from aggression, support for allies and friendly countries, and help in the elimination of armed conflicts. The strategic assessment of the role of the land forces until 2020 is that, most probably, the land forces will be involved in action in the event of regional conflicts, provide humanitarian assistance, and participate in the fight against terrorism and guerrilla groups in urban and rural areas. They can also be used in combat operations in the coastal zone and in the defense of the continental United States.

The view of U.S. military theorists is that the land forces of the 21st century should differ significantly from the army of the 1980s and early-1990s, primarily as a number of technical innovations, mainly in the sphere of information technology, will enter service. These forces will be a more flexible strategic force capable of winning a decisive victory on the battlefield as they maneuver and deliver effective and accurate fire. In the first half of the 21st century, U.S. Army formations and units will continue to be stationed in Korea, Japan, and Western Europe, although their numerical strength may be reduced. Improvements to the structure of organization and establishment also assume changes to the ratio of the active and reserve components of the land forces.

Two options are being proposed:

1. the first is to retain only the powerful combat units as active and to move secondary units to the reserve; and,

2. the second is to move the major combat units to the reserve and to include forces more suited to modern conditions for the use of military force (operations during local military conflicts) in the active component.

Currently, the U.S. land forces are in the process of evolutionary development, as they are saturated with computer and information technologies. The army of the "day after tomorrow," which should emerge in the 21st century as a result of a "revolution in military affairs," will be a qualitatively new formation. The land forces of the "day after tomorrow" are most likely to be composed of this kind of numerically small units and formations capable of quick redeployment from one point of the globe to another in order to deliver

short-duration and pinpoint strikes without bulky combat support. A small number of larger subunits will remain for peacekeeping operations.

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