

# Modernization of Strategic Nuclear Weapons in Russia

## The Emerging New Posture

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### **Why Study Strategic Modernization?**

Modernization of strategic weapons belongs to what some call the “traditional agenda” of security studies, an area of research whose popularity has plummeted with the passing of the Cold War. The treaties signed by the Soviet Union/Russia and the United States (INF, START I, START II,<sup>1</sup> and lesser ones) as well as other steps, including the 1991 initiative of Bush and Gorbachev,<sup>2</sup> were broadly viewed as putting an end to the nuclear arms race. Accordingly, mastery of arcane nuclear war-fighting theories and the intricacies of arms control negotiations seems increasingly irrelevant. More salient issues, such as economic and political

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<sup>1</sup> INF –Intermediate Nuclear Forces, i.e. the 1987 Treaty, which eliminated land-based missiles with the range from 500 to 5,500 km; START I-Strategic Arms Reduction Treaty, the 1991 Treaty, which reduced the strategic weapons of the Soviet Union and the United States to 6,000 accountable warheads (due to special accounting rules, the actual number of warheads was higher for both sides); START II-the 1993 Treaty, which reduced the strategic weapons of Russia and the United States to 3,500 warheads (the number of accountable and real warheads is equal under the rule of the treaty). The INF Treaty has been implemented, START I is being implemented now, START II has not been ratified by Russia.

<sup>2</sup> In the late September-early October, 1991 Presidents Bush and Gorbachev made unilateral, more or less parallel statements with regard to both strategic and tactical nuclear weapons. Both sides canceled one ICBN program each, the Soviet Union promised to unilaterally reduce its strategic forces under START I to 5,000 warheads, and–the most significant part–both sides promised to significantly reduce their tactical nuclear weapons by removing to central storage facilities or eliminate warheads for all land- and sea-based tactical delivery system and a significant portion of warheads for air-based non-strategic delivery systems. These statements also include other important steps.

integration, ethnic conflicts, and WMD proliferation occupy the attention of policymakers and academics.

But old problems do not go away quietly. The place and the role of nuclear weapons has changed, as has the nature of interests in them, but in some way they continue to be relevant. During the Cold War, the threat of nuclear war seemed so great that any progress in arms control was welcome; common interest in preventing war was like locomotive, which could pull superpower relations out of crises. Today, this is no longer the case. Arms control plays a visible role in great power politics (and rightly so), progress on new treaties is no longer a necessary or, even worse, setback can easily disrupt broader cooperation. Arms control and the politics of nuclear balance have become a disruptive force, to an extent, as exemplified by the deadlock over START II ratification in Russia.

There are two alternative ways the politics of nuclear balance could affect relations between Russia and the United States: one is negative. Some Russian modernization options could undermine the stability of the nuclear balance and stimulate a launch-on-warning posture; this could be perceived as a threat in the 1970s and the 1980s. It should be noted that the Soviet Union never actually had a first strike capability; the key here is the reaction of the United States and the modernization programs it adopted in response.

The same option could also result from the deployment of a national missile defense (NMD) system by the United States. Russia will see it as destabilizing and is likely to respond by modernization and/or buildup of its offensive forces, which, in its turn, would cause negative reaction in the United States. Given the nature of the issue, the impact on the domestic political situation in both countries is likely to be highly disruptive.

The other alternative is positive. Russian strategic modernization could proceed in a stabilizing manner and facilitate eventual transition toward a pure second strike posture. The real significance of this development, however, will not be in its impact upon the nuclear balance: nuclear war is clearly not in the cards. Rather, stable nuclear balance will enable the sides to “forget” about those weapons; the arsenals will become useless not only for combat, but also as apolitical instrument. Since complete nuclear disarmament is hardly possible in the foreseeable future, putting weapons “aside”, relegating them to irrelevance is as close to their elimination as realistically possible. Thus, the purpose of studying strategic modernization is not to learn more about possible scenarios of a nuclear exchange, but rather to understand an important aspect of domestic politics in Russia and the United States and, through it, the dynamic of the future relationship between them.

The potentially disruptive impact of the politics of nuclear balance is demonstrated by the continuing saga of START II ratification in Russia. The shortcoming of START II have already provided fertile ground for

conservative/nationalist opposition and helped mobilize voters around their platform. Whether these shortcomings military significant or not seems irrelevant: what counts is how the potential imbalance is used in the political games. Although the government is likely to push START II through the parliament,<sup>3</sup> it might have to make concessions in other areas of the domestic political process.

The materials presented in this paper suggest that the current modernization programs in Russia lean toward the second, positive alternative. Its future nuclear arsenal is likely to be small, conducive for strategic stability, and non-provocative. It might even be unnecessary for Russia to engage in a significant buildup effort in response to a US NMD system, if one deployed.

The positive outcome depends on two conditions. One is the minimum level of funding. Without it, the strategic triad quickly disintegrates. This would be a potential dangerous development, since it might provoke a massive buildup once the economic situation improves and/or might increase the likelihood of an authoritative regime that would mobilize resources to support such a buildup. Second, the transition toward the new posture is politically difficult; its proponents will remain vulnerable for at least the next five-seven years, until the new posture finally takes shape and Russia's international situation stabilizes.

In this regard the US policy toward Russia will have a lasting influence on the ongoing transition. Since Russia lacks financial and political resources today, the full impact of current US policy will be delayed until the next decade: no matter what the United States does, Russia will have to ultimately accept it, but this acceptance could be short-lived, depending on what is at stake. This means that today's reaction of the Russian government to US policy is not necessarily a reliable indicator of long-term relations; the "shadow of the future" should never be absent from policy planning in either country.

This paper begins with an analysis of the ongoing debate over the strategic modernization in Russia, reviews the policy of the government and the military leadership, and then proceeds to the available data on actual modernization programs. The last part will draw conclusions regarding the possible evolution of these views under various scenarios.

## **The Nuclear Debate**

The well-known thesis that nuclear weapons are valued in Russia because they are the last vestige of its great-power status is generally correct but hardly sufficient to explain the attention to the nuclear arsenal.

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<sup>3</sup> For a comprehensive analysis of the prospects of START II ratification see "Problemy Ratifikatsii Dogovora SNV-2 Na Vesennei Sessii 1998 goda v Gosudarstvennoi Dume" (The Problems of Ratification of the START II Treaty during the Spring 1998 Session of the State Dume) in *Voprosy Bezopasnosti*, Vol. 23, No. 3.

Nor is it sufficient to say that nuclear weapons are a key security guarantee. These statements yield little value in terms of predicting the size and the shape of the arsenal since they do not contain criteria by which one could judge whether the existing arsenal is sufficient, or has to be increased, or modernized, etc. Without such criteria, decision-making is virtually impossible: any decision would be arbitrary and subject to intense challenge from the opposition, both within and outside the government.

Apparently, the benefits and losses resulting from the STAR II Treaty are not at the center of the debate, either. The impact of START II rather easy to calculate, and a decision would have been made earlier. Nor is the matter of funding necessary at stake: everyone knows that Russia cannot afford to reject START II, but this does not dissuade its opponents. Some suggest that STAR II simply should not be ratified in order to keep more options open for the future, when the economic situation improves; others prefer to ratify START II because it does not contradict what they consider the optimal future strategic posture. Rather, the debate is about the criteria by which the Russian nuclear arsenal should be judged. An agreement on the criteria will determine its eventual size, structure, missions, and capabilities.

This frame of reference has several important implications. The most important among them is that the approval or the rejection of START II will not end the debate: the decision of the Duma will affect the probabilities of various outcomes, but will completely foreclose any of those. If the treaty is ratified, the option of MIRVing ICBMs will not be removed completely: Russia could still return to them, for example, if the United States deploys an NMD. On the other hand, the rejection of START II does not automatically mean that Russia will MIRV its ICBMs: it might still stick to that key provision. At this writing, the ratification resolution, which will be sent to the floor of the Duma, is likely to espouse the first option: START II would be subject to a review in the case the United States deploys an NMD to determine whether MIRVing is advisable. At the same time, the resolution will insist on even deeper reductions, a START III treaty.

Another characteristic of the debate could be detected in frank discussion with many Russian experts: the lines between various positions are not necessarily drawn according to political, ideological, or institutional boundaries. Rather, they often run within individuals: quite a few experts cannot decide on their own preferences. It would be a mistake to picture the situation in simple black and white colors, as a standoff between "liberals" and "conservatives" or between "hawks" and "doves". In this sense, the disagreements described below are relative: in some cases, they refer to whole groups, but in others they describe the uncertainty that exists in the minds of experts and politicians.

All sides in the debate share a number of positions, first and foremost that Russia needs nuclear weapons and that their role has increased since the end of the Cold War. At a minimum, they are supposed to prevent large-scale aggression and guarantee Russia's sovereignty and survival. A study of the Russian Institute of Strategic Studies (RISI) underscored that "humankind has not created a substitute to nuclear weapons in terms of their deterrent effect in the situation of escalating large-scale armed conflicts. This means that in the foreseeable future nuclear weapons will remain an important element of global politics despite all the 'inconveniences' related to their maintenance and the continuing debate over the actual role of nuclear weapons in preventing world wars during the last fifty years."<sup>4</sup> In other words, the special role of nuclear weapons is determined by their real or perceived "absolute" character.

From here, it follows that nuclear weapons can compensate for Russia's inferiority in Conventional armed forces relative to NATO and China. The new military doctrine, which is expected to be adopted sometime in 1998, will provide for the use of nuclear weapons "in the case of an immediate threat to the sovereignty and territorial integrity of Russia that has emerged as a result of an external aggression."<sup>5</sup> This will be a reaffirming of the provision of the 1993 doctrine, which, in its turn, repudiated the 1982 Soviet policy of no-first-use. The 1993 first-use plank was also confirmed in the 1997 national security concept.<sup>6</sup>

Having introduced the first-use plank, however, the 1993 doctrine retained certain restrictions on the use of nuclear weapons against non-nuclear states in line with the negative guarantees provided by the Soviet Union (as well as all other "legitimate" nuclear states) in connection with the Treaty on the Non-proliferation of Nuclear Weapons (NPT). Only nuclear-weapons states and their allies can be threatened with nuclear weapons. The new, 1998 doctrine will keep these limitations together with the first-use provision: Anatoli Klimentko and Alexander Koltukov underlined that the 1993 document enjoyed the support of the Foreign Ministry (meaning, it did not contradict international obligations) and thus it was decided to keep it. They also noted that while the doctrine was

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<sup>4</sup> *Yadernui Faktor v Sovremennom Mire* (The Nuclear Factor in the Contemporary World), ed. By V. Krivikhizha (Moscow: RISI, 1996), p.10.

<sup>5</sup> The new doctrine has not been released yet, but its main provisions are described in fair details in: Anatoli Klimentko and Alexandr Koltukov, "Osnovnoi Document Voennogo Stroitelstva" (The Key Document of the Military Posture), *Nezavisimoe Voennoe Obozrenie*, 13 February 1998, p. 4. The authors were part of the team charged with drafting the document and the text of their article was evidently sanctioned by a higher authority.

<sup>6</sup> The 1993 military doctrine was published in *Izvestija*, 18 November 1993. The national security concept (Kontsepciya Natsionalnoi Bezopasnosti Rossiiskoi Federatsii) was approved by Boris Yeltsin on December 17, 1997.

still under development unnamed experts attempted to broaden the first-use plank<sup>7</sup>.

A broader, less official approach to the use of nuclear weapons includes, for example, deterrence against “a belt of unstable, and something unfriendly, states and countries, which covertly seek weapons of mass destruction.”<sup>8</sup> This definition embraces the majority of states to the south of Russia; it is interesting to note, however, that the recent shifts in Russia’s relations with Iran and Iraq have probably weakened the perceived necessity to rely on nuclear weapons. Still, some states could be viewed as “candidates” for deterrence by nuclear weapons, e.g. Pakistan, whose policy in Afghanistan and Central Asia is assessed in Russia as unfriendly.

The disagreement within the Russian elite regarding nuclear weapons rather closely mirror the debates in the United States in the end of 1960s-early 1970s and in the 1980s between the proponents of mutual assured destruction (MAD), war-fighting, and war-winning approaches<sup>9</sup> with just one important exception: almost no one in Russia advocates a transition to defense programs similar to SDI. A comparison of the current debate in Russia to the 30-year old debate in the United States sheds additional light on its substance and the views expressed by different sides. It could also provide a better grasp on how various doctrines emerge. Some are likely to relate to the nature of nuclear weapons, other to the conventional balance, still others to specific weapons systems that provide new capabilities.

To a larger extent, the perceptions and the prescriptions regarding nuclear weapons appear to be determined by two related variables. One is the relationship with the United States and NATO, another is the prospect that the United States might deploy an NMD system and yield the Russian deterrent potential useless. These variables are related to the extent that the latter could be viewed as part of a “devious plan” to dominate and subjugate Russia. They differ to the extent that the NMD could be conceptualized as an independent phenomenon: the United States does not harbor hostile plans toward Russia, but, regardless of intentions, the deployment of an NMD could undermine the hedge

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<sup>7</sup> Anatoli Klimenko and Alexander Koltukov, “Osnovnoi Document Voennogo Stroitelstva” (The Key Document of the Military Posture), *Nezavisimoe Voennoe Obozrenie*, 13 February 1998, p. 4.

<sup>8</sup> *Ratifikatsiya Dogovora SNV-2: Resheniya, Problemy, Perspektivy* (Ratification of START II Treaty: Solutions, Problems, Prospects), (Moscow: Spiritual Heritage Foundation – RAU-Corporation, 1996), p. p. 58.

<sup>9</sup> For a concise summary of this debate see James DeNardo, *The Amateur Strategist: Intuitive Deterrence Theories and the Politics of the Nuclear Arms Race* (Cambridge: Cambridge Univ. Press, 1995), especially chapter 2, and Steven Hook and William Clark, “On the Scholarly Study of Nuclear Deterrence: Historical Roots of the new Discourse” in *After the Cold War: Questioning the Morality of Nuclear Deterrence*, ed. By Charles Kegley and Kenneth Schwab (Boulder: Westview Press, 1991)

against future threats that might unexpectedly emerge, for example, as a result of elections ten or twenty years from now.

## **The “Minimalists:” Back to the Classic Age of Deterrence**

Broadly speaking, there are two loose, ill-defined groups. One could be called the “minimalists”- those who perceive a limited role for nuclear weapons and favor a relatively small arsenal. Another is the “maximalists”- those who tend to assign a broad range of missions to nuclear weapons and insist that Russia needs a large arsenal.

On the question of relations with the West, very few members of the Russian political establishment continue to adhere to the 1992-style positive view of these relations. But the end of the “honeymoon” conceals two rather distinct interpretations of the events, past and future. Most “minimalists” say that there are no fundamental differences between Russia and the United States, but cooperation is difficult and sometimes impossible because the United States simply does not want it. In their view, the United States often substitute cooperation with complete acceptance of its position by Russia and tends to label any agreement as a return to the Soviet/imperial policy. Examples abound, from the early disagreements on Bosnia to the continuing conflicts around NATO enlargement in Iraq.

More specifically, there is growing dissatisfaction with the failure of the United States to accommodate Russian complaints about START I implementation.<sup>10</sup> According to the Russian view, these problems could be solved, but the United States does not wish to; a narrowed focus is on the US Navy, which, some say, refuses to budge even where it is possible and necessary. A more traditional area of concern is the ABM Treaty: the American arguments in favor of a national missile defense are simply not taken seriously by Russian expert. The agreement on demarcation of tactical and strategic defenses signed in New York in the fall of 1997 were met with wide-spread dissatisfaction as well: they are viewed as insufficient since the United States can still interpret them to allow development of TMD systems, which, in Russian eyes, have strategic potential.<sup>11</sup> Some Russian experts believe that a more stable agreement

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<sup>10</sup> For a brief overview of these complaints see Gennadi Obolenski, “O ‘Serykh zonakh Budushchikh Peregovorov po Dogovoru SNV-3” (On the ‘Grey Areas’ of the Future START III Talks), *Yadernaya Bazopasnost*, No. 6-7, 1997, p. 45.

The Russian government avoids public discussion on the issue; its complaints are pursued confidentially through the appropriate channels (the JCIC – the Joint Compliance and Inspections Commission established under START I). Still, on at least one occasion the concern was aired in the Duma: on February 4, 1998 Gennadi Zuzanov, the leader of the Russian Communist Party, noted that the United States was “violating” START I, which makes ratification of START II impossible (Interfax, 4 February 1998).

<sup>11</sup> See Anatoli Dyakov, George Lewis, Pawel Podvig, and Theodore Postol, “Razrushenie Dogovora po PRO” (The Destruction of the ABM Treaty), *Nezavisimoe Voennoe Obozrenie*, 3-9 October,

was possible, but the United States refused to accept it (of course, many US experts will not agree, but it is significant that this perception is widely spread in Russia).

Still, the situation is far from critical, and patience and diplomacy are seen as the main policy tools. This line has been evident in the acceptance of the NATO-Russia Permanent Joint Council “in exchange” for NATO enlargement and in the maneuvers around Iraq in the fall of 1997 and in the early 1998. Within this paradigm, nuclear weapons are important, but are expected to back up policy rather than play an independent role. In addition to a fundamental role as a security guarantee, they also guard against uncertainties in the future: a real large-scale conflict with NATO and/or of a national missile defense by the United States.

These views produce the perception of a rather limited role for nuclear weapons. In many respects, it is close to what Bernard Brodie wrote in 1946: “The first and most vital step in any American security program for the age of atomic bombs is to take measures to guarantee to ourselves in case of attack the possibility of retaliation in kind.”<sup>12</sup> The ‘minimalist’ view of nuclear weapons is also in line with the views postulated in the first Soviet official recognition of possession of nuclear weapons, in 1951: the TASS statement declared that the purpose of Soviet nuclear weapons was deterrence of nuclear war.<sup>13</sup> The core of this view is the ability to retaliate in case of an attack—a nuclear attack in the “classic” formulation or a large-scale conventional attack under a more recent policy.

A more liberal view of the “minimalist” view was expressed by Sergei Kortunov: “The optimal version of Russia’s nuclear strategy today is a variant of non-aggressive, non-offensive and non-provocative (one could even say “friendly”), but also credible deterrence, which should be aimed not only at the USA, but ‘at all azimuths’—a Russian version of the classic French, de Gaulle’s doctrine of ‘dissuasion’ as opposed to the American doctrine of ‘deterrence’ through the threat of annihilation.”<sup>14</sup> Although

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1997, p. 1; and “O Dogovore Mezhdru RF I SshA o Dalneishem Sokrashchenii i Ogranichenii Nastupatelnykh Vooruzhenii 1993 g. “ (On the Treaty Between the RF and the USA on Further Reduction and Limitation of Strategic Offensive Arms of 1993), *Obozrevatel-Observers*, No. 1, 1998 (<http://www.orc.ru/~observer>). These two pieces are interesting because they represent the case when the same view is expressed by the experts who belong to opposite camps: the first was published by the Center on Disarmament at MphTI (the Moscow Physics and Technical Institute) and the other by the Spiritual Heritage Foundation.

<sup>12</sup> Bernard Brodie, ed., *The Absolute Weapon: Atomic Power and World Order* (New York: Harcourt, Brace, 1946), p. 72.

<sup>13</sup> *Pravda*, 6 October 1951. It is interesting to note that nuclear weapons were supposed to deter US nuclear weapons rather than a conventional attack, and be used in a retaliatory strike. This stands in contrast to the recently formulation of the nuclear strategy (the transition towards the first use) and probably was directly related to the Soviet superiority in conventional armed forces.

<sup>14</sup> Sergei Kortunov, *Kontrol za Vooruzheniyami I Interesy Rosii* (Arms Control and the Interests of Russia)(Moscow: Moscow Public Science Foundation, 1997), p. 22; Vladimir Bogomolov, Sergei Kortunov, “O Natsionalnoi Yadernoi Stratiefii” (On the National Nuclear Strategy), *Mezhdunarodnaya Zhizn*, 1, 1998, pp. 67-80.

this view enjoys some popularity, it is yet hardly feasible or bureaucratically: the military and politicians would search for “objective” criteria to determine “how much is enough,” and these criteria will inescapably be relative to the US nuclear arsenal, which is the largest in the world. Still, this might represent the future of Russian thinking on nuclear weapons if external and domestic conditions are right. The dominant view of “minimalists” today does not boil down to simple existential deterrence, in which the very presence of nuclear weapons deters the other side.