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Moscow's Debates on the Future of Russia's Strategic Nuclear Forces

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Since the collapse of the USSR, the evolution of Russia's nuclear triad has been driven by multiple factors:

- Severely reduced economic and technological capabilities to maintain or modernize large-size Strategic Nuclear Forces (SNF);
- Changing perspectives on threats to Russian security and defense/security requirements;
- Competition between different structural components/elements of the triad for resources/political influence, etc.

A key perceived achievement of the Vladimir Putin presidency has been reversing the disintegration of the country's nuclear potential that started when important "chunks" of the Soviet triad were "left behind" in the former Soviet republics, and throughout the 1990s, when the remaining hardware and infrastructure were allowed to undergo painfully visible "natural attrition."

In the view of many in the military establishment and the expert community, the Yeltsin government appeared to be also involved in unequal strategic arms reductions with the United States through a continued START process that was bound to result in forced destruction of the most powerful weapon systems on the Russian side, i.e., land-based intercontinental ballistic missiles (ICBM) armed with Multiple Independently Targeted Reentry Vehicles (MIRV), without adequate responses on the American side. An added element of deep dissatisfaction among the military was an accompanying attempt to change the composition of the Russian triad, traditionally concentrated in the land-based Strategic Missile Troops (SMT), to follow closely the U.S. model that emphasizes sea- and air-based components.

The early Putin government could not avoid criticism when it at first tried to follow in the steps of its predecessor. In 2000, the announced decommissioning of "heavy" Russian ICBMs ahead of any agreement with the U.S. on coordinated mutual arms reductions provoked widespread recriminations. A storm of protests had also followed the decision to subject SMT to sweeping downgrading¹ and downsizing.²

¹ According to presidential edict No. 337s, by June 1, 2001, "the Russian Federation branch of service the Strategic Missile Troops was to be transformed into the Russian Federation branches of service—the Strategic Missile Troops and the Space Troops."

² According to accounts in the Russian press, accelerated reductions of the SMT proceeded between 2000 and 2002: "Of the 19 divisions that made up the Strategic Missile Troops in 2000, today there are just 10 left. Strictly speaking, only two combined units—the Tatishchevo Division (Saratov Oblast) and the Uzhur Division (near Omsk)—can be described as combat-ready. The eight others have already become storage depots for arms and hardware or will become that in the foreseeable future... The Chita large strategic formation has already died a [natural] death and a similar fate also lies in store for the Orenburg army. And

According to Aleksei Arbatov, former deputy chairman of the State Duma Defense Committee, “The decision of the RF military-political leadership in 2000-2001 on the downsizing of the [land-mobile ICBMs] within SNF... was a mistake of historical dimensions. Politically, it has resulted in the U.S. withdrawal from the ABM Treaty and the U.S. refusal to conclude a full-scale new START 3 treaty.”³

Major General (Ret.) Vladimir Dvorkin, former director of the 4th Central Scientific and Research Institute of the Defense Ministry responsible for the development, maintenance and testing of all Soviet strategic offensive systems, reflected the views of many when he argued that Moscow was going in the exactly opposite direction of what the U.S. was trying to accomplish with its deterrence potential:

The United States has just added Ballistic Missile Defense to the long-ago integrated military space and strategic nuclear forces, while we have almost totally demolished a compatible structure having spent several hundred million rubles on that disintegration. Bankruptcy of the decisions on the composition of SNF including the premature liquidation of ICBMs was patently apparent already in 2000 in connection with the unavoidability of U.S. withdrawal from the ABM Treaty and the impossibility of START II entering into force.⁴

Eventually, by late 2002, the SMT reorganization plans were scrapped. The “pro-missile” faction in the military hierarchy managed to convince Vladimir Putin and his immediate entourage of the need to bolster Russian offensive nuclear capability in the face of U.S. strategic advances. Progress of U.S. NMD plans was clearly used as one of the strongest arguments in favor of preserving the status of the SMT and extending the service lives of aging heavy ICBMs,⁵ expressly to counter the U.S. BMD threat.

All basic doctrinal and policy statements from the Putin government stress the importance of the nuclear triad, and particularly SMT, for assuring Russian survival as an independent state. In effect, they reflect the fundamental Russian belief in the virtue of nuclear deterrence despite the changed international climate and improved bilateral relations with the United States

At the signing of the SOR Treaty, Russian Defense Minister Sergei Ivanov declared: “We do not need nuclear parity with the U.S.A. dating back to the Cold-War period.”⁶ However interestingly, shortly after that the Russian Foreign Ministry offered a “corrected” Russian appraisal of parity requirements:

that represents no more and no less than whole six divisions—at Kartaly, Nizhnii Tagil, Yoshkar-Ola, Bersheti, Yasnoye, and Yuriya”. (See: *Moskovskii Komsomolets*, March 14, 2002).

³ Aleksei Arbatov, “Military Reform In the Light of Others’ Mistakes,” *Nezavisimoe Voennoe Obozrenie*, 23 May 2003.

⁴ Vladimir Dvorkin, “The Kremlin Relies on Blind Cynics,” *Nezavisimoe Voennoe Obozrenie*, 7 February 2003.

⁵ As explained by Colonel General Nikolai Solovtsov, Commander of Russia’s Strategic Missile Troops, currently “a priority task for the SMT is extending the service lives of Russia’s missile complexes by a factor of 2 to 2.5 above original figures of 10-15 years.” *Vozdushno-Kosmicheskaya Oborona*, 5 May 2003.

⁶ *Nuclear Russia Today*, 4 June 2002.

The Treaty and other documents of the summit are aimed at consolidating the new relations between the U.S.A. and Russia... when the meaning of nuclear parity is not what it used to be in the Cold-War era. Still, the comparability – at a fundamentally lower level – of the nuclear arsenals of the U.S.A. and Russia, undoubtedly, remains an important element of strategic stability.⁷

In effect, deep down many politicians and experts in Russia continues to believe that

Despite the changes in the world, in U.S.-Russian relations and the policies of both countries, in their doctrines and operational plans for the use of strategic nuclear forces, both Russia and the U.S.A. continue to proceed from the concept of mutual nuclear deterrence.⁸

Andrei Kokoshin, former Russian Deputy Defense Minister, argued:

Naturally, nuclear deterrence does not guarantee against all possible political and military threats however it plays the role of a fundamental factor in all more or less significant conflicts and crisis situations. The system of nuclear deterrence is called upon, among others, to prevent the possibility of escalatory dominance by any of our potential opponents. It should include the strategic nuclear forces as well as operational-tactical and tactical means, and it should be integrated.⁹

A most recent confirmation of the Russian leadership's emphasis on strategic nuclear deterrence came in a July 2004 speech of Defense Minister Sergei Ivanov at the London Institute of Strategic Studies. Ivanov declared:

Nuclear deterrence is a burden that the nuclear powers have to go on carrying... The main task of Russian policy in the area of strategic deterrence is guaranteed defense of the sovereignty, territorial integrity and other vital national interests of Russia and its allies.¹⁰

Importantly, under Vladimir Putin, the choice between a return to costly confrontation with and “surrender” to the militarily much more powerful U.S. has been mitigated by a welcome improvement in bilateral relations. Russia responded positively to U.S. offers of qualitatively new relations that originally came in President Bush's May 1, 2001 speech on BMD at the National Defense University in Washington D.C.¹¹ Signing SORT,

⁷ *Nuclear Russia Today*, 23 May 2002.

⁸ See: V.V.Prozorov, *Nuclear Deterrence in the Theory of Application of Strategic Missile Forces. Part I. Theoretical Aspects of the Activity of SMF Groups in Implementing Nuclear Deterrence*. Moscow, 1999.

⁹ “Interview with Andrei Kokoshin, Chairman of the State Duma Committee on CIS Affairs, former First Deputy Minister of Defense of the Russian Federation,” *Nezavisimoe Voennoe Obozrenie*, 16 May 2003.

¹⁰ Sergei Ivanov Revealed to the Brits the Goals and Purposes of the Russian Nuclear Forces, *Lenta.ru*, 13 July 2004. <<http://lenta.ru/world/2004/07/13/ivanov/>>

¹¹ Columnist Alexander Golts wrote on the occasion: “On May 1, 2001 an event took place that one could venture to call historic. It was emphasized that the proposed BMD system... would signify the revision of the foundations of bilateral security that existed since the signing of the ABM Treaty... The Kremlin should not turn aside from the new realities but should try with all its might to understand them... The United States is in effect embarking on a radical restructuring of its strategic forces and this basically destroys the system of relations in the military sphere that has taken shape over the past 30 years. They were based on the principle of deterrence or the maintenance of approximate equality of the nuclear potential of Russia and the United States, enshrined in a whole series of international treaties and

establishing cooperation with the U.S. on anti-terrorism, etc., have provided Moscow with an opportunity to try to gradually bridge the technological gap with the U.S. while not overtaxing its economy and/or precipitating a direct confrontation with Washington. An important priority in this strategy is to “optimize” the Strategic Nuclear Forces, i.e. to downsize the triad without compromising its overall deterrence capability. Reducing expenditures for maintaining nuclear forces would also help allocate increased funding for improving the conventional army.

Moscow follows a two-track policy as far as its nuclear assets are concerned: on the one hand, it tries to prolong to the maximum extent possible the service-lives of existing systems, while on the other hand, attempts to modernize existing systems and develop new technologies.

One of the most recent announcements on extending the terms in service of Russian ICBMs came on May 6, 2004 from the Commander of the Strategic Missile Troops Colonel-General Nikolai Solovtsov. According to Solovtsev the systems to remain on combat duty well beyond original guaranteed service terms include the R-36M heavy ICBMs [SS-18, “Satan”].¹²

Among some reported new technological achievements, great prominence has been given to a maneuverable warhead for ICBMs. At the January-February 2004 command exercise, Vladimir Putin announced:

We have definitively established and confirmed that the Strategic Missile Troops will soon take delivery of state-of-the-art technical systems which are capable of hitting targets at intercontinental range at hypersonic speed and with great accuracy, as well as being highly maneuverable in terms both of height and direction.

As explained by reporters from *Rossiiskaya Gazeta*:

This was a reference to a fundamentally new ballistic missile warhead, nothing similar to which exists now—or is likely to exist soon—elsewhere in the world. The Soviet Union began, and the Russian Federation completed, the construction of a warhead capable of penetrating any antimissile defense. Experts believe that no effective systems for intercepting the Russian miracle weapon will be created in the next 100 years... The ability to create such a weapon was given to us by... the Americans. Under START-I, restrictions were imposed on the number of nuclear warheads. At that time the USSR was bringing into service the Topol ground-based mobile strategic system, which was designed to have cluster warheads [“kassetnyye boyevyye chasti”]. As it happened, though, it was decided

agreements.” [See: Aleksandr Golts, “The Sharp End of the Nuclear Umbrella,” *Itogi*, 4 May 2001.] Reacting to the May 1 speech, Putin expressed agreement with the general outline of Bush’s speech, and emphasized its non-adversarial tone: “It is hard not to agree with the U.S. President when he says the world is changing very rapidly and that new threats could emerge. I agree we must think about this...The President’s statement that the USA, the administration and the President himself do not regard Russia as an adversary or an enemy is...noteworthy. In my view, this creates a good basis for a positive dialogue.” [NTV Broadcast, 4 May 2001].

¹² “Russian Strategic Missile Forces Working To Extend Missiles’ Service Lives,” *Agentstvo Voyennykh Novostei*, 6 May 2004 [FBIS Transcribed Text CEP20040506000145].

that mobile missiles should have single warheads, and this created surplus volume and the possibility to install additional equipment in the missile head.

And pretty soon the Topol's totally "blunt" warhead, which used to be capable of flying along a clearly prescribed trajectory, turned into a highly maneuverable, supersonic missile. This was achieved by placing several maneuverable missile engines and a ramjet ["pryamotochnyy reaktivnyy uskoritel"] in the warhead. The Russian designers also managed to make use of the peculiarities of the lower strata of the Earth's atmosphere to enhance maneuverability. In certain sections of its flight, the warhead bounces like a ball, rebounding from denser atmospheric strata. During its descent, such a missile begins to fly in unpredictable zigzags and to jump up and down. Even tracking it with the most powerful radars is very difficult, and hitting it is impossible. The most amazing thing, though, is that, after all its crazy maneuvers, the missile finds its assigned target and hits the 'bull's-eye'.¹³

It is clearly understood that modernization and R&D are of paramount importance if Russia wants to retain its unique nuclear status and face potential future challenges. As stated by the Russian President in the Annual Message to the Federal Assembly on May 26, 2004,

It is imperative to shield our country from any types of military-political pressure and potential threats. The important task is equipping our nuclear forces with the most advanced systems of strategic weapon.

U.S. modernization efforts are being closely watched; for example, in the above mentioned lecture at ISS in London, Sergei Ivanov said:

Moscow is carefully watching what the U.S. is doing in the area of strategic nuclear forces... In particular, we are curious about American programs on the creation of super-small nuclear explosive devices: each new type of weapons introduces anew element into the overall picture of global stability. We must take that into account in our military planning.¹⁴

At the same time, many Russian experts warn against "blind copycatting" of U.S. programs but even more importantly against the temptation to keep "mirror-like" parity with the U.S. in the structure and composition of the strategic triad:

The desire of the Defense Ministry to emulate the U.S. and maintain "the balanced triad" under conditions of bitter insufficient resources even for any one single SNF component, their system of warning and control, unavoidably leads to the complete disintegration of the Russian potential of strategic deterrence.¹⁵

¹³ Sergey Ptichkin and Vladislav Kulikov: "He Asked 'Topol' What New Weapon Was President Talking About?" *Rossiyskaya Gazeta*, 20 February 2004. [FBIS Translated Text, CEP20040223000091].

¹⁴ Sergei Ivanov Revealed to the Brits the Goals and Purposes of the Russian Nuclear Forces, *Lenta.ru*, 13 July 2004. <<http://lenta.ru/world/2004/07/13/ivanov/>>

¹⁵ Aleksei Arbatov, "Military Reform In the Light of Others' Mistakes," *Nezavisimoe Voennoe Obozrenie*, 23 May 2003.

The more radical expert proposals include both significant reductions of the operationally deployed warheads on the Russian and American sides as well as shifts within the triad to reflect the changed strategic situation after the end of the Cold War. As stated in a recent report by experts of the U.S. and Canada Institute¹⁶ in Moscow:

Termination of the ideological conflict between Moscow and Washington... calls for a more positive model of bilateral interaction in the nuclear sphere... It is quite sufficient for Russia and the U.S. to keep no more than 500 operationally deployed nuclear warheads on high combat alert in order to par possible threats from any third party (parties). Keeping only a small part of strategic offensive forces on high combat readiness makes a preemptive counterforce strike impossible... A combination of traditional quantitative limitations and levels of readiness could create a certain “Matryoshka”. The first category could include high-readiness strategic weapons (e.g. up to 10 minutes). Russia and the U.S. could agree to limit these means to no more than 500 warheads. They could include SLBM warheads on SSBNs in areas of patrol as well as ICBMs on constant combat alert. The second category could include lower-readiness means that can be prepared for use over several days or longer periods. These weapons could be limited by a “ceiling” of 500-1000 warheads. The third category could comprise reserve nuclear means or those means that are placed at a “zero” level of readiness (requiring weeks and months to be put to use). Their number should not exceed for example 1000 warheads. Besides that, Russia and the U.S. could agree on control over the perimeter of industrial enterprises that assemble and disassemble nuclear warheads. The proposed scheme would help bring the possibility of a sudden disarming and decapitating strike down to zero. At the same time, both sides will retain the ability to build up their nuclear forces fairly rapidly in case China or any other power attempts to catch up with them in the quantity of nuclear weapons.¹⁷

Institute specialists also argue that:

There is no need to try to preserve the symmetry in the composition of the two countries’ Strategic Nuclear Forces (SNF), however logically it is expedient to keep 150-200 nuclear warheads in the land-based component of SNF and no more than 300-350 nuclear warheads in the naval component. However each side will decide on the composition of these forces itself.¹⁸

Some specialists believe that tactical nuclear weapons should be taken into account as an important element of Russian strategic planning. A recent report by the Center for the Study of Problems of Disarmament, Energy and Ecology of the Moscow Institute of Physics and Technology¹⁹ suggests that Moscow may be able to use TNW as a “trump card” in dealings with the U.S. on controversial military matters:

¹⁶ The report was authored by director Sergei Rogov, deputy director of the same institute Major-General (Ret.) Pavel Zolotarev and Colonel-General (Ret.) Victor Yesin.

¹⁷ See: “Experts Propose a Complex of Measures of Trust on Strategic Weapons,” *Nezavisimoe Voennoe Obozrenie*, 25 June 2004.

¹⁸ *Ibid.*

¹⁹ The report was coauthored by A.S. Dyakov, Ye.V. Myasnikov and T.T. Kadyshev.

The existence of huge nuclear weapons' reserves not subject to measures of transparency and control would invariably poison and impede the development of bilateral Russian-U.S. relations... Today the U.S. is mostly interested in assuring reliable storage and control over [tactical] nuclear ammunition in Russia. However, tomorrow its interest may be predicated not on the issue of safety but the quantitative superiority that Russia still has over the U.S. in only this type of weapons... Russia regards U.S. nuclear weapons still remaining in the European territory as strategic since they can cover most of its territory and threaten the security of its key installations... NATO's refusal to conclude a binding agreement on the non-deployment of nuclear weapons in the territories of the new member-states is another argument that strengthens this Russian position... However, removal of U.S. non-strategic nuclear weapons [NSNW] from the European territory is not the only Russian condition that may move Russia to negotiations [on NSNW]... The next impediment may be NATO's superiority in conventional weapons. Particularly telling in this context is the interview of the First Deputy Commander of the General Staff of RF Y. Baluevskii²⁰ related to the situation with the ratification of the adapted CFE treaty in which he said that Russia has a sufficient arsenal of forces, means and methods of assuring security and assuring its national interests.²¹

Problems related to the composition of the Russian nuclear triad are closely linked to lack of sufficient resources for maintenance and modernization. As reported, despite increases in overall military appropriations, competition for funding between services in general, and component structures in the triad remain intense:

In 2005 the government plans to increase appropriations to purchase military hardware by one third, and they would increase to 180 billion rubles [\$6 billion]... Aggregated expenditures under "National Defense" will grow from 435.6 billion rubles this year (2.8% of GNP) to 520 billion rubles (2.9%) in 2005. Therefore the state defense order will grow by 30% which is 1.5 times faster than the growth of overall military expenses. Priorities in the state defense order are secret however the military and the bureaucrats have stated on many occasions that until 2007, the weapons program does not foresee massive purchases of serially-produced weapons and is primarily geared to the conduct of scientific-research and experimental-design activities as well as modernization of existing technologies. A source in one of the aviation industrial companies expressed hope that aviation will become one of the priorities... However it is also feared that people from the missile forces and the Navy who have stronger lobbies in the Defense Ministry will again redistribute the state defense order in favor of cost-intensive projects related to new strategic missile systems for the Strategic Missile Troops and the Navy... As last year, according to a source in the ship-building

²⁰ On July 19, 2004, by virtue of a presidential decree, Yuri Baluevskii was appointed Commander of the General Staff and First Deputy Defense Minister of the RF to replace Army General Anatolii Kvashnin long-embroiled in a personal feud with Defense Minister Sergei Ivanov.

²¹ A.S. Dyakov, Ye.V. Myasnikov and T.T. Kadyshev, Non-Strategic Nuclear Weapons. Problems of Control and Reduction. Center for the Study of Problems of Disarmament, Energy and Ecology at MFTI. Dolgoprudnyi, 2004, 72 pp.

industry, the Navy continues to spend money on completing the strategic submarine cruiser “Yurii Dolgorukii”, the new nuclear sub “Severodvinsk” and other SSBNs whose construction had been started during the Soviet period.²²

Problems of the Navy remain particularly acute. In effect, laments 1st Captain Zaborskii,

Throughout the entire period of the “reforms” virtually no naval construction has been taking place. Without the money you can build no fleet, and no fleet (nor army) may be maintained without it... No one knows when the construction of the strategic missile-carrying submarine “Yurii Dolgorukii” and the multi-purpose nuclear submarine “Severodvinsk” will be completed... Another problem is the catastrophic shrinking of the basing system for the fleet. Russia is in effect... cut off from access to two most importantly located seas at the Eurasian continent – the Baltic and the Black.²³

Serious difficulties are also being encountered in developing a new-generation SLBM for the nuclear Navy.²⁴

In expert opinion, strategic elements of the Air Force experience problems similar to those of the nuclear Navy. A recent catastrophe involving a Tu-22M3 bomber (NATO classification ‘Backfire’) allowed military analysts Vadim Solovyev and Vladimir Ivanov to assert that it is Russia that has become hostage and potential target to some of the dangerous aging hardware in the arsenal.²⁵

In light of the deteriorating conditions of the naval and air components of the triad, some Russian experts suggest that it is time to accept “the inevitable” – give up all or most of the assets in these two triad arms in favor of the land-based component – the Strategic Missile Troops. For example, recently at a “conference on nuclear weapons problems” in Moscow, Major General (Ret.) Vladimir Dvorkin made a dramatic proposal to revamp the Strategic Nuclear Forces. Dvorkin argued that Strategic Missile Troops would be “the most flexible, reliable, precise, powerful, and combat-ready leg of the nuclear triad, which has always accounted for 60 per cent of nuclear warheads in the inventory of the Russian Strategic Nuclear Forces.” Moreover, maintenance of SMT assets has always been cheaper and safe compared to other components of the triad.²⁶

However, Dvorkin himself expressed doubts about the leadership’s willingness to accept his recommendations on “rejecting the SSBN development program” and “assigning all heavy bombers to non-nuclear tasks.” In effect, continued existence of the triad is a political symbol for Russia that allows it to claim special status in relations with the U.S.

²² Aleksei Nikolskii, “Government Wants to Spend \$6 Billion on Weapons,” *Vedomosti*, 17 June 2004.

²³ Vladimir Zaborskii, “Where Does the Russian Navy Drift?” *Nezavisimoe Voennoe Obozrenie*, 16 July 2004.

²⁴ Admiral Suchkov Revealed the Main Secret of the Russian Navy, *Lenta.ru*, 26 May 26 2004. <<http://lenta.ru/russia/2004/05/25/suchkov/>>

²⁵ Vadim Solovyev and Vladimir Ivanov, “Backfires Keep Russia under the Nuclear Sight,” *Nezavisimoe Voennoe Obozrenie*, 16 July 2004.

²⁶ Russian Military Analyst Urges Revision of Strategic Nuclear Forces Policy,” *Agentstvo Voennykh Novostei*, 11 June 2004.

and global affairs writ large. Its preservation is and will remain a top priority goal of the Russian government.