Some of the Current Aspects of the Modernization of the Russian Strategic Nuclear Arsenals

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Abstract: In 2010-2013 the United States of America announced the shift of its nuclear strategy priorities. In the context of scientific research it is necessary to understand the core of the given strategy and the consequences it may cause for the global military and strategic situation. The authors of the current article have analyzed the key Russian-US documents related to the evolution of their attitude towards military security and modernization of the strategic nuclear arsenals. Additionally the research of the Russian position and development of its nuclear deterrent force was conducted.

Key words: Military security · Modernization of nuclear arsenals · Russia · United States · Nuclear strategy

INTRODUCTION

One of the major threats to the Russian military security is policy of some leading foreign states, aimed at achieving of dominance in the military sphere, above all in the nuclear arsenals, through the development of high-accuracy, informational and other high-tech means of armed forces. In this regard, Russian National Security Strategy points out, that “Negative influences on the military security of the Russian Federation and its allies are aggravated by the departure from international agreements pertaining to arms limitation and reduction and likewise by actions intended to disrupt the stability of systems of government and military administration, rocket attack warning systems, control of outer space, the functioning of strategic nuclear forces, nuclear weapons storage facilities, nuclear energy, nuclear and chemical industry and other potentially dangerous sites”[1].

Under the present geopolitical conditions the possession of nuclear weapons is the key-factor for the provision of Russian National Security. It allows fulfilling the nuclear deterrence policy, which main aim is “the prevention of nuclear conflict as well as any other military conflict” (in accordance with the Military Doctrine of the Russian Federation approved by the Presidential Decree # 146, February 5, 2010). “Maintenance of strategic stability and nuclear deterrence at a sufficient level” is vitally important for the implementation of this task; conditions of use of nuclear weapons for the Russian Federation are defined as follows: “Russia reserves the right to use nuclear weapons in response to use of nuclear and other weapons of mass destruction against it and (or) its allies, in case of aggression against the Russian Federation with the use of conventional weapons, posing a threat to the very existence of the state” [2].

The main aim of this article is, above all, to analyze a number of US doctrinal and legislative documents, pertaining to the topic and, secondly, to study actions of the Russian leadership, aimed at detecting and preventing military threats, as well as the modernization of Russian strategic arsenals.

The United States announced a shift in priorities of its nuclear strategy. In the course of the current study it is necessary to understand the essence of this strategy and what kind of consequences could be for the global military-strategic situation and for the adjustable Russian military doctrine. According to key recommendations published in “Nuclear Posture Review Report” (NPR), the Obama administration announced in May 2011 that “the process of revision guidelines of the Bush administration in terms of operations with application nuclear weapons (NW) and the policy of containment has started” [3].

As it was mentioned in the Report, the revision of nuclear
policy is “to assess the requirements for deterrence, including analysis of potential changes in the necessary requirements for the selection of targets and force structure”. This analysis is intended to inform the administration about possible future reductions in strategic offensive arms (START) and provide various options of such reductions to the President.

However, having convinced in a tough the negative attitude of Russia towards START further reductions due to the inability to achieve an acceptable compromise for it, especially on the global mobile missile defense system and its European segment (Euro-ABM), Obama ordered the Pentagon to develop an implementation strategy United States nuclear weapons (NW) on the basis of the guidelines adopted by the American President.

It is necessary to highlight that the constant feature of the US nuclear policy is its attempt to justify the use of nuclear weapons in the conflict as first resort. “Report 2010” intentionally opens up the possibility of choice for the US preemptive nuclear strike against Russia, China, North Korea and (possibly) future nuclear force against Iran.


A careful analysis of “Report on Nuclear Employment Strategy of the United States” shows that their military and political leadership maintains its strong commitment to the global doctrine of offensive nuclear deterrence, as well as an integral part of this strategy in the form of extended nuclear deterrence is intended to increase regional nuclear deterrent in order to protect other states, with which the United States maintains close military-political and military-technicalities.

Although the Pentagon reserves the right to use nuclear weapons only in extreme circumstances, in practical terms it may exercise such rights at anytime and anywhere in the world to protect the vital interests of the United States, its allies and partners, both in the first and in the response nuclear strike [5].

In particular, the new Pentagon document includes some provisions that demonstrate the willingness of the United States to adhere to offensive nuclear doctrine and follow plans to use nuclear weapons in a first strike at its discretion. First of all, the withdrawal from the strategy of “minimum deterrence” was recorded which originates from the need to maintain such number of nuclear weapons available for the State Strategic Command, that does not allow to begin a nuclear attack, but enables only to response by the second in a row nuclear strike, because such kind of nuclear deterrence does not include provision for applying the first or pre-emptive nuclear strike.

Renunciation of reliance on the “minimum deterrence” further emphasizes the possibility to use nuclear weapons by the United States and return to some other rarities of the Cold War. In this regard, I. Bocharov considers that the doctrine of minimum deterrence, which excludes the use of nuclear weapons first, provides deterrence by the secondary use. If we accept this approach, we can put an end for the aggressive nuclear planning, put up a barrier for the endless modernization and provide a stable path toward nuclear disarmament [6].

Secondly, the “updated” nuclear strategy preserves the significant counterforce capability that implies nuclear strikes on military targets in order to minimize the possibility of nuclear strike by potential rival, which also means that the United States can be the first to attack such objects. To demonstrate fake readiness to switch to non-nuclear means of warfare and to prove the allegedly existing desire to reduce reliance on nuclear forces, the Pentagon must provide a more efficient planning of US nuclear missile forces usage after the expiration of the Prague START-3 Treaty, keep an inventory of the non-nuclear strikes application. It is important not to lose sight of the fact that the wording of “reducing reliance on nuclear forces” applies only to cases of implementation of conventional weapons by a probable enemy.

The Pentagon report also justifies the US intention to keep nuclear weapons for an indefinite term by stressing the presence of Russian traditional triad of strategic offensive weapons, as well as a large number of tactical nuclear weapons in general, even though the Russian Federation and the United States have neither exchanged official data on tactical nuclear weapons nor conducted talks about their possible reduction or limitation.

The formulation, which had previously been used in other recent American military and strategic guidelines on the use of nuclear missiles, was repeated and stated that USA will not use nuclear weapons against NPT signatories, but only in case that they will meet their obligations under the Nuclear non-proliferation treaty. Of course, the right to determine the states that do or do not
comply with the provisions of the international treaty will solely belong to the American side, as Washington proclaimed. Thus, the US tactical nuclear weapons will remain in Europe until an unspecified period of time - until NATO defines the conditions that will be the basis of changes in the nuclear policy of the alliance.

In accordance with the June US nuclear paradigm, the country will simultaneously retain heavily forward-based systems in the form of general purpose forces and missile defense systems outside its territory, which are becoming an important component of the US strategy of global and regional “extended nuclear deterrence”, which was also reflected in the final documents of the NATO summit held in Chicago.

As V. Kozin believes, the key point of Obama’s Berlin speech was his suggestion to further reduce the strategic offensive arms of Russia and America by one-third with respect to the limits of the previous START-3, signed in Prague in 2010 [7].

In this context, one cannot ignore the fact that for the maintenance and modernization of the existing strategic nuclear arsenals, the current US administration intends to allocate a considerable amount of $124.8 billion within the next ten years. Over the same period of time, $100 billion is expected to be spent on upgrading and servicing of the strategic missile and aviation means of delivering nuclear weapons as well as Air Force to transport tactical nuclear bombs within Europe.

Thus, the total appropriation for the declared objectives will be nearly $225 billion. The United States is not going to abandon the traditional strategic nuclear “triad” in the form of nuclear ICBMs, SLBMs and heavy bombers and does not plan to switch to nuclear “dyad”, as some American experts trying to reassure the international community. In the next few decades (at least until 2070-2075), US Strategic Command will retain a “triad”, all elements of which, without exception, will undergo further improvement and modernization.

Until 2050 modernization of US tactical nuclear weapons will take place in parallel and delivery of such means is scheduled on the fighter-bomber F-35 to 2070-2075. In addition, three types of the American nuclear bombs, formally related to tactical nuclear weapons (the definition of such means from the political and legal point of view is still pending), can be delivered by strategic heavy bombers.

It is obvious that features of the “renewed” US nuclear strategy mentioned above and further enhance of its strategic and tactical nuclear missiles should be considered both in revisions to the military doctrine of the Russian Federation and in determining the perspective of Russia’s position on the possible future negotiations with US on the issue of nuclear, missile and conventional weapons, as well as other aspects of the military-political agenda between Moscow and Washington.

Based on the foregoing, it can be argued that at the moment there is a disparity in Russia threatening its ability to stay equal to the United States nuclear deterrent. Russia’s attempts to compensate for this disparity through its participation in European missile defense are rejected by USA. Extremely aggravated Russian concerns about the conservation of its nuclear deterrence was not weakened even by the US decision to refuse to deploy the fourth stage of the European missile defense, destined for “partial” early intercept ICBMs as the most effective way to implement the ABM.

Thus, the content of “Report on Nuclear Employment Strategy of the United States”, which is essentially a manifesto of modern US nuclear strategy, most definitely highlighted the threat of such possibility, that the United States can use nuclear as the first counterforce strike. Undoubtedly, such a certainty even more aggravates US-Russian contradictions in resolving the issue of missile defense.

On an international scale the possibility of using nuclear weapons first (preemptive strike, which can only be counterforce) was and remains the subject of a categorical condemnation of the international community. The latest report of the International Commission on Nuclear Nonproliferation and Disarmament called for the nuclear powers to accept the prohibition to use nuclear weapons first (No First Use - NFU) until 2025.

It is necessary to emphasize that multilateral negotiations on nuclear arms reductions should cover all types of nuclear weapons. It is vitally important to overcome the largely artificial stereotype, which divides nuclear weapons on strategic and non-strategic ones. The point is that the fundamental difference between strategic and non-strategic nuclear warheads does not exist; moreover, some of the non-strategic nuclear warheads are not inferior to certain types of strategic nuclear warheads, or even superior and can be deployed on strategic delivery vehicles (for example, tactical nuclear bombs on strategic bombers). These negotiations should include not only the nuclear security interests of all aspect, but also a wide range of other issues affecting the participants. V. Esin believes that, among other issues, the formation of a new security architecture in the world should be discussed, in which strengthening of the security of one state (or coalition of
states) is not allowed at the expense of others (in other words, will adhere to the principle of equal security for all participants in the negotiation process) [8].

Obviously, the conversion of the idea of multilateral negotiations on nuclear disarmament into practice will require the formation of a discussion platform, acting on a permanent basis. Its prototype could be a meeting of high-ranking representatives of the USA, Russia, Britain, France and China, held in Paris on June 30, 2011, where global nuclear issues were discussed.

Apart from some the foregoing provisions of the National Security Strategy and Military Doctrine it is worth mentioning some theses of the Russian Foreign Policy Concept, approved in February 2013, pointing out that Russia “strictly complies with its international obligations under international treaties in the field of arms control, as well as taking measures to strengthen trust in the military sphere; participates in the development and signing of new agreements in these areas, consistent with its national interests and measure all the factors influencing the strategic stability based on the principles of equality and indivisibility of security; attaches priority to the implementation of the agreement between the Russian Federation and the United States of America on further Reduction and Limitation of Strategic Offensive Arms…” [9].

Specific measures of the Russian leadership in this area should be further considered.

**Measures of the Russian Leadership:** Special attention was given to the issue of the implementation plan for the state defense order at the meeting of the expanded board of the Ministry of Defense, which took place December 10, 2013. The main topic of discussions was noticeable, even taking into account all multi-dimensional issues discussed at a series of preliminary meetings with the heads of the army and the defense industry. First and foremost, the discussion was devoted to the modernization of the nuclear deterrent forces (SNF), despite the fact that the debate on retrofitting of conventional forces was very poor. Such a direction was set by the Russian president Vladimir Putin at the very first meeting, when he told the audience that 22 intercontinental ballistic land-based missiles will replenish arsenal of the Strategic Missile Forces in 2014. A part from this the decision to build in Russia not only solid, but heavy and liquid rockets that would replace the systems, which were in service for over 20 years, was highlighted. Speaking about it, Putin also said: “They must be not only powerful, but also modern in terms of opportunities to overcome any missile defense systems today and in the future”[10].

Strategic component was in the spotlight when discussing the prospects of development of the Air Force, for the service of which a promising aviation complex of long-range aircraft will come in the near future, which will replace all long-range aircraft Tu-95 and Tu-160 of the Russian Air Force.

The naval component of the strategic nuclear forces will be upgraded as well. In January 2013, strategic missile carrier “Yury Dolgoruky” joined the Navy of Russia. The commissioning of new nuclear submarine “Alexander Nevsky” is planned in January, 2014. Transfer of NPS “Vladimir Monomakh” is scheduled on the end of next year. “And by 2020 - up to eight nuclear strategic submarine cruisers should be taken into service to our Navy”, - said Putin at a meeting on the development of the nuclear forces of the Navy.

Putin told the leaders of the Ministry of Defence and defense industry enterprises: “In fact, today precision-guided weapons are an alternative to nuclear weapons and the effectiveness of a number of parameters it is not inferior”. Apparently, the President of Russia thoroughly analyzed data of American experts, announced a few months ago the Chairman of the Military-Industrial Commission, Dmitry Rogozin. The US specialists argued that the US arsenal of high-precision weapons could destroy 80-90% of Russia’s strategic nuclear potential in a few hours.

In this context, the imminent completion of a range of works on creation of a fifth-generation air defense system S-500, which can solve the problems of missile defense, was announced. Its comprehensive tests will star in 2014t. This is a signal that Russia simultaneously boosts re-equipment of SNF with the latest, more sophisticated means of delivering nuclear warheads, rapidly increases its own arsenal of precision weapons and strengthens troops Aerospace Defense [10].

**CONCLUSION**

Analyzing experience of the Russian Strategic Missile Forces evolution (RSMF), we can distinguish three most important aspects of their further improvement: technical, organizational and political.

Technical aspect is currently the most elaborated ones and basically already practically implemented on the basis of deep modernization of existing facilities and new technological advance. It includes the creation of new fixed and mobile missile systems (including rail-based), their more effective combat equipment (including, possibly, the performance of non-nuclear), infrastructure deployment, provisioning and management, adapted to the conditions of the implementation and content of
future combat tasks. This refers to the defeat of the purposes and the importance of different classes (including critical infrastructure and information systems) in all regions of the world in the context of an acute temporary shortfall, which is most likely for the characteristic response, active information counter and the availability of a potential enemy layered missile defense. It is assumed, in particular, that by 2020 RSMF must fully switch to more speedy and secure digital transmission technology.

Thus, the most important recommendations for development of the technical aspect of the Strategic Missile Forces can be described as the following: first, to ensure the time and full implementation of decisions and commitments and secondly - to work out additional measures to maintain the stability of the combat groups in the foreseeable conditions of modern warfare. The latter is connected with a wide range of issues – from information saturation, including the development of early warning and decision support tools, the organization of cover of information-psychological and reconnaissance and sabotage the enemy's actions, as well as its high-precision strikes [11].

Organizational aspect of development of the Strategic Missile Forces originates naturally from the projected changes of objectives and their implementation circumstances, as well as technical aspect of the armed forces respectively. The basis of appropriate organizational structure in the form of the Strategic Missile Forces missile regiments, divisions and armies is saved in the practically proved and effective form.

Political and information-psychological [12] aspect of the Strategic Missile Forces primarily originates from the necessity of specific positioning of the Russian Federation in front of the international community as a sovereign self-sufficient state, intended and able to pursue an independent policy and to defend effectively its national interests and its allies.

Thus technically fortified and logistically supported by appropriate policy measures, the Strategic Missile Forces in conjunction with other developing components of the Strategic Nuclear Forces and general purpose forces are called to make asymmetric response to Russia in the medium term, which is capable to fend off any modern military-technical challenges and global threats.

REFERENCES