IMPORTANCE OF MAINTAINING AND STRENGTHENING NATO’S NUCLEAR DETERRENCE BASED ON THE RUSSIAN AGGRESSION AGAINST UKRAINE

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Introduction

Nuclear deterrence is a cornerstone of NATO’s defense and deterrence policy. Although the Alliance is not a formal party to arms control negotiations, it has long been committed to arms control, disarmament, and non-proliferation. Within the Alliance, consultations continue in various formats (the North Atlantic Council, the Nuclear Planning Group, and the Defense Planning Committee). The main purpose of these consultations is to focus on issues related to today’s arms control architecture. At present, NATO is successfully balancing nuclear deterrence and disarmament aspirations, although for a 30-member organization this is quite a challenge. Over the years, NATO has experienced a major crisis in terms of nuclear identity. Some Allies have sought to strengthen the Alliance’s arms control profile, while others have consistently opposed changes in this direction. It is also noteworthy that the position of NATO has often changed under the influence of significant changes in the field of international security. Despite conflicting views within NATO on nuclear deterrence, it has evolved into a nuclear alliance that effectively ensures peace and security in the Euro-Atlantic region. Today, European security faces the greatest challenge since the Second World War: on the border with NATO, one sovereign and independent state is waging unprovoked, unjustified war against the world, while threatening the world with nuclear weapons. In this unprecedented situation, NATO needs to maintain and further strengthen its nuclear deterrence policy to ensure lasting peace and stability. In this article, we review the history of NATO’s formation as a nuclear alliance and the importance of maintaining and strengthening its nuclear deterrence and conventional defense capabilities.

Formation of NATO as a nuclear alliance

The 1960s marked a turning point in terms of arms control and non-proliferation. The Cuban Missile Crisis, the Soviet Union’s technological advances in intercontinental ballistic missiles (ICRMs), and China’s nuclear tests in 1964 raised serious questions about President Eisenhower’s “massive retaliation” doctrine. Accordingly, the Kennedy administration decided to create an arms control architecture. Negotiations under this policy led to the signing of the Limited Test Ban Treaty in 1963, and subsequent negotiations led to the signing of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) in 1968 (UN Department of Public Information, 2004, pp. 124–125). Arms control and disarmament were not a priority for the Alliance until the 1960s. However, the changing global security environment pushed NATO to adapt to the new reality. In this regard, the first significant changes within the Alliance took place in 1966–1968 (Wenger, 2004). This transformation was based on the Future Tasks of the Alliance (the so-called “Harmel Report”, prepared by the then Prime Minister of Belgium, Pierre Harmel), which set out the goals of the Alliance. Since that time, NATO’s strategy has focused on providing defense and preventing aggression through a combination of political restraint (détente) and an adequate military arsenal. According to the document, “military security and tension reduction are not mutually exclusive, but compatible” (NATO, 1967): “Obviously, the Alliance must pay special attention to arms control issues. Arms control issues and possible security measures must be considered with the same care and attention that NATO treats military planning, strategy, and nuclear matters. The Council frequently discussed arms control issues. Disarmament experts have even discussed these issues at the technical level in regular meetings. While this effort is very valuable, it is not enough. The Alliance should establish a regular and permanent mechanism to study and evaluate all aspects of proposals in this area. This can be achieved following the Council’s mandate through the establishment of a separate Standing Committee, the Committee on Arms Control and Disarmament” (NATO, 1967).

The issue of establishing the above-mentioned committee was also discussed in the same document. Although the Committee was not established, the document was an important step forward in initiating the arms control process within the Alliance. In 1965, a related major change in the United States’ foreign policy regarding nuclear weapons took place. President Johnson decided that the sharing of nuclear weapons with the Allies (which had been the practice since Ei-
senhower’s presidency) and the ongoing negotiations with the Soviet Union on arms control and non-proliferation were incompatible. As a result, Johnson said it would be appropriate to set up a “Nuclear Defense Relations Committee” and a “Nuclear Planning Group”. These new institutions laid the groundwork for the consultation and planning process on the possible use of nuclear weapons and abolished the physical control of the delivery systems that the Alliance had exercised before the amendments were adopted. Although this decision was not met with enthusiasm by the Allies, they had no other alternative and agreed to the changes (Buteux, 1983; Haftendorn, 1996). In 1977, the Alliance formed the High-Level Group to negotiate the SALT I and SALT II negotiations, to discuss the Alliance’s modernization of medium-range and short-range nuclear missiles (INF), and to establish a common position on the Soviet Union’s deployment of new missile systems (Arms Control Association, 2019; NATO, 2022). As a result, on December 12, 1979, NATO developed a Dual-Track policy, which stated that “NATO would begin to modernize its nuclear arsenal and deploy US cruise missiles and Pershing II missiles in Europe, but at the same time actively seek to reach an arms control agreement with the Soviet Union” (Guchua, 2021). “If successful, it would remove the missile deployment from NATO’s agenda” (Guchua, 2021). Arms control negotiations took on special significance during the Reagan administration. As a result of a long process, a new architecture of arms control has been developed. The Short and Medium Range Nuclear Weapons (INF) Treaty was signed in December 1987, which can be considered the most important event in the history of arms control. The treaty was aimed at destroying an entire class of nuclear weapons. The North Atlantic Council expressed satisfaction with this and stated that the document is compatible with the security of the Alliance (NATO, 2019). After the end of the Cold War, the Alliance faced a new reality. It had to redefine its role and decide to make additional efforts to reduce conventional and strategic weapons, to continue strategic arms reduction negotiations and to remain committed to arms control obligations if it maintained a nuclear arsenal. These issues were first discussed at the 1989 NATO Summit. The Alliance then adopted the Comprehensive Concept for Arms Control and Disarmament (NATO, 1989), which aimed to develop arms control and disarmament. While the concept emphasized the importance of nuclear weapons for the Alliance’s defense and security, it nevertheless had a clear preference for strategic arms reduction: “The Allies express their readiness to make increasing progress in achieving their arms control objectives. Further development of the comprehensive concept will be carried out through the development of an integrated approach that includes interoperable defense policies and arms control policies. Working in this direction also requires full consideration of the specifics of the interrelationship between arms control tasks and defense requirements and of strengthening the Alliance’s security in the context of individual and joint work of various arms control mechanisms. The guidelines and key objectives of arms control remain the same” (NATO, 1989). This position was reaffirmed in NATO’s 1991 and 1999 Strategic Concepts, which stated: “The Alliance will maintain an adequate supply of nuclear weapons in Europe. These weapons must have the necessary characteristics, appropriate flexibility, and survival capability to be perceived as a credible and effective element of the Alliance’s war prevention strategy. Arms will be maintained at the minimum, the satisfactory level necessary for peace and stability” (NATO, 1991). Even in the 21st century, due to conflicting positions, the Alliance is again faced with a dilemma. Some member states believed that NATO should devote itself entirely to arms control and non-proliferation. The signing of a new START treaty between the US and Russia in April 2010, the first UN Nuclear Security Summit in April 2010, and the NPT Review Conference in May 2010 put additional pressure on the Alliance to strengthen its arms control policy. However, a group of experts selected by NATO Secretary-General Anders Fogh Rasmussen to work on recommendations for a new strategic concept published a report on 17 May 2010 stating that: “NATO must maintain a safe and reliable nuclear arsenal at a minimum level that is relevant to the security situation and share broadly the responsibility for its deployment and operational support. Any change in this policy, including the geographical redistribution of NATO nuclear weapons deployment in Europe, like other important decisions, must be made by the entire Alliance. NATO should invite Russia to the ongoing discussions on nuclear visions, concepts, doctrines, and transparency, and should establish a special advisory group to coordinate the ongoing dialogue on nuclear issues in the Alliance” (NATO, 2010a). As a result, in December 2010, NATO adopted a new strategic concept. According to the document, the Alliance maintains and strengthens its nuclear arsenal as an integral part of its defense and containment policies. Most importantly, for the first time in history, the document states that NATO is a nuclear alliance – a term never used before, even during the most acute phase of the Cold War: “Restraint based on an adequate mix of nuclear and conventional capabilities remains our strategy. As long as there are nuclear weapons, NATO will remain a nuclear alliance” (NATO, 2010b). At the 2012 Chicago Summit, the Alliance adopted the Deterrence and Defense Posture Review (DDPR) (NATO, 2012), which finally de-
fined nuclear deterrence and arms control as a cornerstone of NATO security. Based on the DDPR, the Special Advisory and Consultative Arms Control Disarmament and Non-Proliferation Committee (ADNC) was set up to build a dialogue with Russia on confidence-building and transparency issues (NATO, 2022).

**Strengthening NATO nuclear deterrence**

In 1984, Ronald Reagan said: “I believe that we cannot leave a new generation in a world that lives in constant fear of this weapon and knows that any crazy person can push a button” (Chitadze, 2008). Consequently, arms control and non-proliferation remain an important task for the international community, as it is the only way to ensure world peace and stability. However, in this process, the participants need to adhere to the idea of the destruction of nuclear weapons in good faith. From today’s point of view, due to the existence of such an authoritarian hostile force as Russia, a world free of nuclear weapons will remain a dream for many generations to come.

Over the years, Russia has undermined the basic tenets of an arms control architecture. It violated the terms of the INF Treaty, suspended the Convention on Conventional Arms in Europe (CFE), failed to fulfill its obligations under the Vienna Document, repeatedly violated the Open Skies Treaty (causing the US to withdraw from the treaty, and then declared itself the victim) and deliberately violated the Commitments under the Budapest Memorandum.

NATO has tried to deal with this dangerous reality and has repeatedly called on Russia to fulfill its commitments through arms control, non-proliferation and disarmament mechanisms, but Russia’s position has remained unchanged. In such a situation, it has become difficult for NATO to maintain the traditional balance between nuclear deterrence and the pursuit of disarmament. It should be noted, however, that NATO’s categorical position on the Treaty on the Prohibition of Nuclear Weapons (TPNW) is fully justified in this unpredictable situation, as it “does not reflect the architecture of growing international security environment” (NATO, 2020). In addition, Russia’s annexation of Crimea in 2014 once again showed that Russia does not want to ensure peace and stability following the principle of cooperative security in Europe.

The annexation of Crimea made significant changes to NATO’s defense and containment policies. At the 2016 Warsaw Summit, the Alliance adopted a communiqué underscoring the unity of the Allies on the importance of nuclear containment. Given the extremely difficult security situation in the Euro-Atlantic area, when Russia is waging unprovoked and unjustified war against Ukraine, NATO must take a firm stand on maintaining and strengthening its nuclear arsenal. It is expected that, as before, some NATO member states will be willing to give up nuclear and conventional weapons in favor of arms control and disarmament, and will be willing to make additional concessions in this regard with Russia. NATO allies must fully understand the dangers of such concessions and act accordingly. While focusing on strengthening the role of the Alliance as an armament and control forum, NATO needs to be able to, in the new strategic concept adopted at the Madrid Summit in June 2022, make an adequate record of strengthening nuclear deterrence and defending conventional defense.

**Geostrategic aspects of the NATO Nuclear Triad**

The nuclear triad includes three types of strategic nuclear delivery systems: strategic bombers, intercontinental ballistic missiles (ICBMs), and submarine-launched ballistic missiles (SLBMs). While the United States did not intend to build the Triad, many analysts believe that the presence of bombers, surface-to-air missiles, and submarines reinforces its policy of containment. Some scholars argue that the nuclear triad is an artifact of the Cold War and its capabilities are overestimated. However, the role and significance of the nuclear triad are quite real even in modern times, especially after Russia’s invasion of Ukraine. Thus, the triad remains one of the main factors of restraint.

As for bombers, before the invention of long-range missiles until the 1960s, they were the only means of transporting nuclear weapons. Their high vulnerability to anti-aircraft systems, which reduced their ability to move safely, led to the need to develop new means of transport. And the main task of the politicians and diplomats was to provide a signal to the allies of nuclear readiness and adversaries for a policy of containment.

ICBMs can be mounted and placed in reinforced bunkers, or they can be launched on the territory of their own country by various moving means. For example, stationary mine bases and mobile track and motor facilities can be used. The existing weapons include NATO’s Pershing and the Russian Federation’s Topol, which belong to the strategic missile system class.

SLBMs are quite protected because they can stay unnoticed for a long time in the water at great depths where
they are very difficult to detect. In the nuclear triad, this component after ICBMs is perceived as the second most powerful means of a nuclear strike.

The problem with missiles and nuclear weapons is an "old" threat. But, at the same time, it has a qualitatively new dimension, which has come about due to the expansion of the circle of owners of these weapons and the instability of their behavior in this regard. During the Cold War, the strategic balance of a nuclear confrontation was finally established, with the introduction of "mutually guaranteed destruction". This stability was complemented by the virtually complete rejection of defenses against offensive missile-based nuclear weapons. Subsequently, the maintenance of this stability between the USSR (and its successor the Russian Federation) and the United States was accompanied by a radical reduction of missile-nuclear weapons levels and the maintenance of a targeted mutual defense against the possible exchange of nuclear clear missile strikes. Unlike the Soviet Union (RF) – US equalization, which has been implemented on the principle of equality or parity since the 1960s, other nuclear powers (the UK, France, China) have ensured their security by possessing nuclear missiles and more advanced strategic weapons on the principle of "sufficiency" for inflicting unacceptable damage to the aggressor in return. They also did not have or develop anti-missile defenses. As for the UK and France, their position was partly explained by the fact that they were allies of the US and hoped for American help in ensuring their security (Gvenetadze, 2017).

The emergence of new nuclear states in terms of geopolitical aspects poses a major threat to global security. The dissemination of nuclear technologies and expertise in this field is a matter of concern, because these technologies and existing expertise can fall into the hands of terrorists. They want to seize nuclear materials and other components of weapons of mass destruction. The possession of nuclear weapons will inevitably lead to significant geopolitical changes in the future. While in the modern period many states are trying to strengthen ties with the states holding nuclear weapons, the issue of fighting global proliferation is one of the most important problems in international politics. Nuclear states do not want to give up and liquidate their existing nuclear arsenals. They are, on the contrary, refining and improving the components of the existing strategic strike weapons, which puts the world at greater risk.

It is important to consider a nuclear power modernization study by members of the Nuclear Club. The United States is engaged in an intensive modernization of its entire nuclear arsenal from storage to delivery systems. The program is projected to be completed by 2046 and is expected to cost 1.2 trillion USD, of which 494 billion USD will be allocated between 2017 and 2026. Its reconstruction program targets the triad, tools, and infrastructure, as well as wave and control systems of nuclear delivery systems on land, in the air, and at sea. The United States is reducing the variety of its nuclear weapons from 10 to 5 through the Life Switch Program (LEP) and upgrading the remaining weapons (W76, W80, W87, W88, and the B61) (Arms Control Association, 2019). Similarly, delivery systems such as the Minuteman III ICBM, the Trident II submarine-launched ballistic missile (SLBM), as well as the B-2 and B-52 bombers, are undergoing modernization. The U.S. Navy is also modernizing the submarines launching SLBMs by replacing the Virginia class with the new Columbia class.

In addition, Washington has begun developing new systems to replace some of the bombers and ICBMs: the B-21 is scheduled to be used by 2023 to replace the B-1 and B-52 bombers, and the "key strategic deterrent" (GBSD) is to be replaced by the Minuteman III in 2028. The United States also plans to modernize its non-strategic nuclear weapons through its relationship with NATO. While the U.S. nuclear modernization program still includes upgrading or modifying existing capabilities, the previous declarations by former US President Donald Trump have allowed the United States to increase the size of its arsenal.

Regarding France, in an address to the French Armed Forces in January 2018, President Emmanuel Macron said that the country's nuclear arsenal – both naval and air – should be renewed by 2035. The French government will allocate 37 billion EUR from 2019 to 2025 to maintain and modernize its nuclear arsenal – about 10 % of the defense budget. Paris is planning to modernize its ballistic missile submarines (SSBNs), which will be equipped with the new model M51 ICBM by 2025, and announced the idea of launching non-nuclear SSBNs by 2030. The new air system, ASN4G, will replace some of France's air cruise missiles by 2035. In parallel, the Rafale B will replace the Mirage 2000N aircraft as the main delivery system for the arsenal of air-to-air cruise missiles.

The United Kingdom, the third member of the Nuclear Club, is the only nuclear power that has reduced the naval component of its nuclear arsenal. Trident's underwater successor program will replace the existing 4 SSBNs in the UK arsenal. The use of the new Dreadnought class submarines is planned for the 2030s. The UK is also working to increase the life expectancy of
its Trident II missiles. The modernization costs, according to the initial budget has amounted to 31 billion GBP, but the costs are expected to increase by about 10 billion GBP for the need of additional investment associated with the nuclear reactor plant. In May 2018, the National Audit Office noted that an additional 2.9 billion GBP would be needed to maintain nuclear renewal plans for the next decade.

U.S. nuclear modernization involves upgrading atomic bombs deployed on European bases. Thus, the modernization of such weapons storage facilities requires a dual-capacity aircraft used as a means of transporting weapons during contingent events. The United States and its allies are already taking the necessary steps.

As part of its large-scale nuclear weapons modernization program, the United States has upgraded the B61 gravity bombs currently in use in Europe. In the new version, the B61-12 is led by nuclear bombs, which is the result of the consolidation of five B61 variants. The next decade will see the development of a guided, low-performance nuclear bomb, and a total export cost of B61-12 will be approximately 7.5–10 billion USD.

Lockheed Martin was awarded a 350 million USD contract to adapt the F-35 joint strike fighter to make it possible to carry the new B61-12. Today, Belgium, the Netherlands, Italy, and Turkey have chosen the F-35A as a replacement for their dual-capacity aircraft (Guchua, 2021). Germany has decided to replace the current PA-200 Tornados with the Eurofighter but has not announced whether it will buy the F-35A for its dual-capacity missions.

Geopolitical rivals of NATO in the field of Nuclear policy

Discussing nuclear policy of NATO, it is also important to analyze the nuclear policy of the two main geopolitical rivals of NATO: the Russian Federation and China.

Nuclear strategy of Russia

Like the United States, Russia plans to modernize its nuclear triad. For the past 15 years, Russia has been working to modernize its ICBM capabilities, focusing on the development of the RS-12 Multiple Independently Targeted Re-entry Vehicle (MIRV) version. It is also developing the RS-28 Sarmat, a heavy ICBM equipped with MIRV. Although the replacement program is slower than planned, the replacement of Soviet-era ICBMs should be completed by 2024. Russia is also modernizing nuclear infrastructures such as silos, centers, or garrisons.

At the same time, a similar modernization of marine components is underway. SSBN's new version, the Borei class, has successfully replaced the Soviet Deltas. Three members of the Borei class are already functioning, while the other five will continue to be constructed over the next three years. Finally, after the modernization of the Tu-95MS bombers, Russia is talking about the development of its next two generations of bombers: the Tu-160M2, which is to be built after 2023, and the PAK-DA, which is to be tested in 2023 and released by mid-2020. However, some analysts question the possibility of the simultaneous development and production of two Russian strategic bombers (Guchua, 2021).

In March 2018, President Putin unveiled a plan for six new nuclear weapons systems, including two nuclear weapons (a submarine drone and a cruise missile), an air-to-air missile, and a supersonic stimulator. In addition, nuclear modernization is expected to continue in Moscow (Guchua, 2021).

Nuclear strategy of China

China has a relatively small, albeit slowly growing, nuclear arsenal. According to the country’s official military strategy, Beijing’s nuclear policy is aimed at “strengthening [China’s] strategic deterrence and nuclear counterattack” through “strategic early warning, instant response, and viability, and defense capabilities” (Guchua, 2021).

China’s nuclear modernization, which has greatly improved the quality rather than the number of nuclear arsenals, reflects its desire to increase the strength of its nuclear forces. It focuses on improving the response to systems deployed by the United States and other countries, particularly the development of ballistic missiles and the accuracy of directly guided missile systems. Moreover, China is particularly concerned about the development of US intelligence and surveillance capabilities. It is replacing existing silo–based missiles with the mobile DF-41, which has an estimated range of 12,000 km. In response to the development of the US Global Missile Defense System and to reduce the effect of Indian and Russian missile defense systems, China has developed several MIRVs. In parallel, China is developing its naval nuclear component: it has developed four, potentially five-core SSBNs that can be equipped with the JL-2 SLBM. With a range of 7,200 km, the JL-2 provides Beijing with its first naval nuclear link (Day, 2019).
Conclusion

The arms control architecture is an important achievement of the international community, which in itself is committed to global peace and stability. Over the years, NATO has developed into a unique platform for dialogue on arms control, disarmament, and non-proliferation. Different countries are constantly changing their views on nuclear challenges and are facilitating consultations and negotiations on arms control. The complete elimination of nuclear weapons must remain the main objective of the international community. However, the fulfillment of this mission imposes many obligations on all participating states. In the unpredictable environment created by Russia’s violent and hostile actions, NATO is in immediate danger. This situation requires a tough and firm response from the Alliance. Experience has shown that, despite numerous attempts to maintain NATO’s commitment to complete disarmament and non-proliferation, changing conditions forced it to act following existential needs. As a result, it turned into a nuclear alliance, thus making an unprecedented step in the history of international relations and global security. Security challenges again oblige the Alliance to remain true to its tradition of adaptability and take adequate measures to enhance its nuclear deterrence and conventional defense capabilities.

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