

# NATO's Nuclear Defense Strategy in the 21<sup>st</sup> Century and the Russia-Ukraine War

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Gogua, Giga (2023) NATO's Nuclear Defense Strategy in the 21<sup>st</sup> Century and the Russia-Ukraine War. *Future Human Image*, Volume 19, 26-33. <https://doi.org/10.29202/fhi/19/4>

*The North Atlantic Alliance is a military-political organization that was created from the beginning to ensure peace and security. The most important goal that drove NATO and still drives it is the protection of its member states from all types of threats. Fulfilling NATO's mission of protecting its member states and ensuring peace and security in the North Atlantic region requires an appropriate strategy and capability to respond to the full range of contemporary challenges. There is a need to adapt NATO's capabilities through development in a changing security environment so that the alliance is always ready to respond when needed. The most important element is nuclear and non-nuclear missile defense, which complement each other. The mentioned forces are supported by military or non-military means. The Russia-Ukraine war has brought renewed attention to the role of NATO and its nuclear defense capabilities in ensuring collective security in the Euro-Atlantic region. As tensions escalate and military confrontations intensify, examining NATO's nuclear defense strategy and its potential implications for the ongoing conflict is crucial. This work aims to explore the significance of NATO's nuclear defense in deterring aggression, maintaining regional stability, and shaping the dynamics of the Russia-Ukraine war. While the conflict poses various challenges and risks, NATO's nuclear deterrent remains a crucial component of the alliance's collective security architecture. The paper discusses NATO's nuclear security policy in the current Russia-Ukraine context. As the situation continues to evolve, NATO needs to reassess its nuclear defense strategy and adapt to the evolving security environment in order to effectively address the complexities of the Russia-Ukraine conflict and promote lasting peace in the region.*

*Keywords: Alliance Security, NATO's Nuclear Policy, Nuclear Defense, Anti-missile Defense, Russia-Ukraine Conflict.*

Received: 18 June 2023 / Accepted: 10 July 2023 / Published: 5 August 2023

## Introduction

The North Atlantic Treaty Organization (NATO), which was established on April 4, 1949, is a military-political alliance of North American and European states whose purpose is to fulfill the goals and objectives defined by the North Atlantic Treaty. NATO's main task is to ensure the freedom and security of its member states, both politically and militarily. It protects the common values of democracy, individual freedom, and the rule of law and ensures the peaceful resolution of conflicts. NATO provides a forum where allies can discuss security issues and act together.

NATO is an intergovernmental organization where member states maintain full independence and sovereignty. All decisions in the alliance are made by the member countries based on consensus. The main decision-making body in the alliance is the North Atlantic Council, whose meetings are chaired by the Secretary General of NATO.

The main task of NATO is to protect the member states from aggression, and an attack on one member of the alliance is considered an attack on all members, which is provided by the fifth article of the founding treaty: "The parties to the treaty agree that an armed attack on one or more of the parties in Europe and North America shall be considered an attack against all and, where appropriate, by Article 51 of the Charter of the United Nations, exercising the right of individual or collective self-defense and, if necessary, using military force, they will assist the party or parties in danger to maintain the security of the North Atlantic region (United Nations Charter, 2023).

Nuclear weapons are a key component of NATO's overall deterrence and defense capabilities, along with missile defense forces. NATO is committed to arms control, disarmament, and non-proliferation, but as long as nuclear weapons exist, it will remain a nuclear alliance. Deterrence and defense based on nuclear and missile defense capabilities, complemented by space and cyber capabilities, remain key elements of NATO's overall strategy to prevent conflict and war.

NATO's nuclear security and effectiveness are constantly being evaluated in light of technological and geostrategic evolutions. NATO's current nuclear policy is based on the NATO Strategic Concept 2022 and the 2012 Deterrence and Defense Posture Review, as well as guidance from Heads of State and Government at the Wales, Warsaw, Brussels, and Madrid summits. The Nuclear Planning Group provides a forum for consultation on NATO's nuclear deterrence. The fundamental purpose of NATO's nuclear forces is deterrence. Furthermore, any use of nuclear weapons against NATO would fundamentally change the nature of the conflict. If the fundamental security of any NATO ally is threatened, NATO can inflict critical damage on an adversary who tries to attack it with nuclear weapons (NATO's nuclear deterrence policy and forces, 2023).

The Russia-Ukraine war has underscored the importance of NATO's nuclear defense in ensuring the security and stability of the Euro-Atlantic region. Throughout its history, NATO has recognized the significance of nuclear deterrence in preventing aggression and maintaining peace within the alliance. The conflict between Russia and Ukraine has heightened tensions and posed challenges to regional security, making it imperative for NATO to carefully assess its nuclear defense strategy (Global security Russia-Ukraine war, 2023).

The existence of nuclear weapons in the region alters strategic calculations and decision-making processes for both Russia and Ukraine. It serves as a crucial factor in shaping military balances and deterrence dynamics, potentially influencing the behavior of the parties involved.

However, the involvement of nuclear weapons in the conflict also raises concerns and risks. The escalation of the conflict to a nuclear level would have catastrophic consequences and must be avoided at all costs. It is crucial for NATO to carefully manage its nuclear defense posture and communicate its intentions clearly to prevent any misinterpretation or miscalculation.

Looking forward, the ongoing Russia-Ukraine war and its implications for NATO's nuclear defense strategy demand a proactive approach. NATO must continuously reassess and adapt its nuclear deterrence policy to address emerging security challenges. This includes considering potential scenarios and outcomes as well as engaging in diplomatic efforts to de-escalate tensions and seek peaceful resolutions.

Ultimately, NATO's nuclear defense remains a vital pillar of the alliance's collective security framework. By effectively leveraging its nuclear deterrence capabilities, NATO can help maintain regional stability, deter aggression, and contribute to the resolution of the Russia-Ukraine conflict. A careful balance between strong deterrence and diplomatic engagement is necessary to ensure lasting peace and security in the Euro-Atlantic region.

As the Russia-Ukraine war continues to unfold, NATO's nuclear defense strategy will continue to play a crucial role in shaping the dynamics of the conflict and ensuring the security of its member states. NATO must maintain a robust and credible deterrent posture while also seeking avenues for diplomatic engagement and de-escalation. The alliance must remain vigilant in assessing the evolving security landscape and adapt its nuclear defense strategy accordingly (Missile Defense and NATO's Lisbon Summit, 2023).

Furthermore, the Russia-Ukraine war serves as a reminder of the broader challenges and risks associated with nuclear weapons in the modern era. It underscores the importance of pursuing disarmament efforts, promoting arms control agreements, and strengthening non-proliferation regimes. While NATO's nuclear defense serves as a deterrent, efforts should also be made to reduce reliance on nuclear weapons and foster a climate of trust and cooperation.

## **Security strategy**

Ensuring the freedom and security of the NATO member states. The main goal of NATO is to ensure the freedom and security of its member states, whether through political or military means. Collective defense has a central role in the alliance, as stated in Article I of the Washington Treaty. The main responsibility of the alliance is to protect the territory and population of the member states from attacks from outside.

Deterrence is one of the key elements of NATO's strategy aimed at preventing conflicts and protecting member states; freedom of decisions and actions; and support for the NATO principles and values that NATO upholds: individual freedom, democracy, human rights, and the rule of law. Freedom of Society the above-mentioned values must be reinforced by NATO's defense capability.

## **Deterrence and defense**

Defense and deterrence for the alliance are provided by NATO coalition of military, naval, and air forces. The most important element is nuclear and non-nuclear missile defense, which complement each other.

The mentioned forces are supported by military or non-military means. An action plan to prepare for a nuclear or other attack was reviewed in Wales in 2014. This was done so that the alliance is ready for any threat in the modern era and can respond quickly to it. In 2016, NATO

Heads of State agreed to strengthen deterrence and defense capabilities, which provide a broad range of NATO actions to protect territory, population, airspace, or maritime communications against any threat. Within the framework of this agreement, four multi-functional military groups were deployed in Latvia, Lithuania, Poland, and Estonia. Defense-strengthening measures were carried out in the European parts of NATO territory.

One of the main components of NATO's defense and security is military exercises, which it often conducts to ensure that the coalition military forces are ready for any threat in a non-combat situation. Also, operational interoperability should be at the highest level between the military forces of NATO member states (Gogua, 2023).

In 2018, NATO leaders in Brussels adopted a plan for a "360-degree response to threats". As part of this plan, the member states of the North Atlantic Organization were ordered to be on full alert at all times within the framework of a rapid response strategy: 30 infantry battalions, 30 air force squadrons, and 30 warships were to be deployed anywhere on earth in 30 days or less. Response to danger. The alliance views the Russian Federation's increase in its missile potential, including long- and medium-range ballistic missiles capable of carrying nuclear warheads, as a threat and perceives it as an action directed against the security and defense of the North Atlantic Alliance (Kimball, 2019).

The alliance's response to these threats is to increase and improve its capabilities by investing in new technologies such as fifth-generation fighters. Also, improvement and development of anti-missile systems and intelligence. At the meeting of NATO leaders in London in 2019, the alliance announced space as the fifth field of operations. Information received from satellites and satellites in space is of great importance for NATO's intelligence, operations, missions, counter-terrorism, crisis response, and collective defense systems. In October 2020, NATO decided to open a space center in Germany. The North Atlantic Alliance takes into account the current situation and the fact that new technologies are areas that are of great advantage in a situation where technological development in the world is changing the picture of warfare, and today it is impossible to ensure security and defense without technologically advanced techniques. NATO's mission has always been to use technological superiority to deter its adversaries. Innovations such as artificial intelligence, nuclear military systems, and biotechnologies are changing the methods of warfare and requiring adaptation and technological development.

### **Investments in security and defense**

Investments in the military sphere are one of the problems that NATO is working to solve. Because not all NATO member states are following, the 2014 decision that states should spend 2% of their GDP on the military and its development. It should be noted here that the United States of America spends the most among NATO member states. If we take the 29 member states of NATO together, the budget spent by America on defense is more than theirs together.

It is important to reserve 20% of the funds spent on defense by NATO member states for new technologies. Also, the NATO states should work to ensure that their military potential meets the alliance's standards. Since 2014, successful steps have been taken to ensure that NATO's military spending is fairly distributed among its member states. However, these steps are not enough, according to the statements of the former President of the United States of America, Donald Trump, that the NATO countries are not spending enough money to improve

military armament and defense. 2021 is the seventh year in which the military budgets of NATO countries have increased. We should take into account that since 2014, the contribution of America from the amount spent on increasing military expenses has been 190 billion (The NATO Members and the Budget Guidelines, 2023).

## **Nuclear and anti-missile defense and deterrence**

For the North Atlantic Alliance, nuclear defense is of paramount importance, given that the creation of the alliance was prompted by the threat posed by the Soviet Union. At the beginning of 1949, when Article 5 was adopted, according to which an attack on one of the members of the alliance was perceived as an attack on all states of the alliance by the Soviet Union, Nuclear weapons would be used in cases of expansionary expansion. It would be from any side.

Today, the Soviet Union is no more, but we face the main threat to the alliance, the Russian Federation, which is the legal heir of the Soviet Union and possesses one of the largest complex arsenals in the world. It is an important fact that, in the event of a possible conflict before NATO, the Russians have an advantage in the direction of the nuclear armament of land bases since they are more developed in this field. If we look at Russian armaments in the ballistic and nuclear directions, we will see a serious force that cannot be unaccounted for, and retaliatory measures must be taken to protect ourselves from the Russian threat (Chitadze, 2008).

The alliance's current nuclear deterrence policy is based on the current alliance's nuclear deterrence policy based on two documents: the 2010 Strategic Concept, which was adopted by the heads of NATO member states at the Lisbon Summit on November 20, and the 2012 Deterrence and Defense Policy Review. NATO's Defense Policy and Planning Committee is the highest body in missile defense. In NATO, he is responsible for defending the alliance against missile threats. Also, it coordinates the direction of missile defense and its development. NATO's military leadership is responsible for nuclear doctrine. In addition, on operational action, training, and planning of British policy, The Air and Missile Defense Committee is responsible for general aspects of anti-missile and air defense policy (Gogua, 2021).

The basis of NATO's anti-missile defense is the voluntary desire of its member states, within the framework of which they contribute to anti-missile defense: placing military bases on their territory, which are necessary for anti-missile defense; providing funds for the development of anti-missile technologies; readiness of own warships for defense and inclusion in the anti-missile defense program; use of own anti-missile, ground, or air means in NATO's nuclear and anti-missile defense plan. An example of this is the deployment of anti-missile defenses at a military base in Spain. In addition, it is the same in Poland, Romania, Turkey, and other NATO countries.

In 2010, at the Lisbon summit, it was decided to create a NATO territorial missile defense system. In 2012, at the Chicago summit, it was announced that they had achieved success in the direction of anti-missile defense. Success lies in the fact that anti-missile defense covers the entire territory of NATO states. It can completely repel limited ballistic missile attacks (Lisbon Summit Declaration, 2023).

The main functions of NATO's anti-missile defense system are planning, monitoring, information exchange and intercept, and management of received results. When it comes to neutralizing a ballistic missile, minutes and seconds are of great importance. This small amount of time can be crucial, so planning and forethought are of great value. When it is necessary

to neutralize a ballistic missile, it is necessary to plan the actions that the defense intends to take and to determine in advance the likely directions from which the risk of a ballistic missile attack is highest (Maisaia & Guchua, 2020).

Therefore, the means of defense should be distributed in the area in such a way that there is the greatest chance of neutralizing possible threats. Monitoring is one of the most important functions. Monitoring: NATO states have satellites and satellites that monitor from space and can provide information about the launch of a ballistic missile to the operational response center, land and naval ships, and patrol NATO territories. Radar systems are also installed to detect ballistic missile launches. The exchange of information is essential for the effectiveness of the anti-missile system.

This makes it possible to react quickly to neutralize a ballistic missile with correct information about the launch trajectory of the missile. Knowing the time to reach the target is paramount and crucial in order to neutralize it. Through the exchange of information in real-time, the complete information available about the ballistic missile is transferred to the armed anti-missile systems, which will then make an operational response. Management of the obtained results: if a real threat arose and ballistic intercontinental nuclear weapons were used in large numbers, unfortunately, no matter how advanced and modern the armament and missile defense is, it is impossible to ignore all missiles, especially nuclear ballistic missiles (U.S. Strategic Nuclear Forces, 2019).

The Israel-Palestine conflict in May 2021 is enough to make sure that the above is correct. One of the most modern anti-missile defense systems that Israel has was not enough to completely neutralize the rockets launched by the terrorist group Hamas from Palestine. For several days, Hamas bombarded Israeli territory, and although most of the rockets were destroyed, some still reached their target. This is a simple example that, if it comes to quantity, then even Hamas's low-tech, unguided rockets are a threat. If we allow for a potential conflict between NATO and Russia, we will be talking about thousands of medium- and long-range missiles, including those with nuclear warheads, which can kill thousands of people, and it is impossible to tell whether a ballistic missile has a nuclear warhead after launch. If not, then it is impossible to prioritize which missile to destroy. That is why the whole civilized world – Europe and America – is trying to limit the production of long- and medium-range ballistic missiles in the world (Vashakidze, 2022).

Below, before I talk about what mechanisms and means NATO has for repelling ballistic missiles, I consider it necessary to talk briefly about the ballistic missiles of land and air bases in Russia and their transfers. The Russian Federation has developed the armament of its land bases to a high level. The Russian Federation is a state that possesses all three components of the nuclear triad: air, land, and naval weapons. The arsenal of the Russian Federation includes the heavy ballistic intercontinental ballistic missile "Voevoda" (P-36M2) 46 produced during the Soviet Union. Unit technical characteristics: length 34.4 meters, diameter 3 meters, mass 211 tons, operating distance 11 thousand kilometers. Modification of "Yars" land-based mobile and mine ballistic missile "Topol-M", (technical characteristics unknown) "Sarmat" fifth generation intercontinental ballistic missile technical characteristics: launch mass of 169 tons. The Tu-160 is a supersonic heavy strategic bomber capable of carrying out nuclear strikes from the air. It was created in the Soviet Union and put into operation in 1987. Today, Russia owns at least 16 units. The flagship submarine of the Russian fleet, "Yasen" project 885 (08850) K560, was commissioned in 2014 as part of the Russian Northern Fleet. It has eight vertical launch shafts for ballistic missiles. If we take into account Russia's nuclear triad, especially

the land-based ballistic missiles, similar military equipment is a serious threat to any country or military alliance. That is why it is completely understandable that the alliance perceives Russia as the main threat if we also take into account that Russia is a non-democratic state for which international law does not represent a strong deterrent barrier to its implementation of the objectives. After the occupation of Ukrainian territory in 2014, international sanctions were imposed on Russia, although the sanctions are not a big obstacle to Russia's expansionist aspirations. Based on the above, NATO's anti-missile and nuclear deterrence plays a critically important role in ensuring security and peace since repelling a first strike is the key to victory in a confrontation between nuclear states (Gogua, 2023).

NATO's anti-missile and nuclear defense mechanisms consist of the unity and combined operation of military anti-missile defenses in the alliance's arsenal. Its working principle is derived from the combined interaction of different types of weapons. These are land-based anti-missile mines; land-based anti-missile self-propelled military weapons from warships on patrol equipped with anti-missile launchers and radars; and military aircraft equipped with radars. At the same time, there are means of radar combat, reconnaissance, unmanned and military aircraft, which carry out reconnaissance and collect information; submarines; and control centers, where information from all the above means is collected, processed, analyzed, and acted upon. All these means are necessary and play a crucial role in the anti-missile defense system. 27 NATO's anti-missile and nuclear defense scheme is given in Annex #1. Annex #2 outlines NATO's combined suite of anti-missile systems that provide defense against and rapid response to missile attacks. Its effectiveness and innovation lie in the fact that it has multiple sources of intelligence and information. 28 such as space satellites, naval radar ships, submarines, ground-based radar and reconnaissance systems, and air systems (Strategic Concept" for the Defense and Security of the Members of the NATO, 2010).

## **Conclusion**

The ongoing Russia-Ukraine war serves as a reminder of the complex dynamics at play in the international arena and the importance of robust defense mechanisms such as NATO's nuclear deterrence. While NATO's nuclear defense strategy plays a significant role in deterring aggression and maintaining regional stability, it should always be accompanied by diplomatic engagement and dialogue to prevent further escalation and minimize risks. Moreover, the Russia-Ukraine war emphasizes the broader challenges and implications of nuclear weapons in the modern world. It underscores the urgent need for renewed discussions on arms control, non-proliferation, and disarmament. International cooperation and dialogue are crucial to addressing the existing tensions, building trust, and reducing the reliance on nuclear weapons as a means of deterrence. In conclusion, the Russia-Ukraine war highlights the intricate relationship between NATO's nuclear defense and the ongoing conflict. NATO's nuclear deterrence capabilities play a pivotal role in shaping the dynamics of the war, maintaining stability, and demonstrating a collective commitment to the security of member states. However, the conflict also underlines the importance of pursuing diplomatic channels and peaceful resolutions to mitigate risks and achieve a sustainable solution. Moving forward, NATO must continue to assess and adapt its nuclear defense strategy in response to evolving security challenges. This includes strengthening collective defense measures, promoting dialogue, and pursuing arms control agreements. By striking a delicate balance between deterrence and diplomacy, NATO can contribute to de-escalating the Russia-Ukraine conflict

and fostering a more secure and peaceful international order. Ultimately, NATO's nuclear defense in the context of the Russia-Ukraine war represents a complex and multifaceted issue. It requires a comprehensive approach that acknowledges the role of deterrence while actively seeking diplomatic avenues for resolution. By doing so, NATO can strive towards a safer, more stable, and more cooperative international environment.

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