



# IAMD (Integrated Air and Missile Defense) Strategic Aspects with SBAD Focus

Lt. Col. Tomasz PIETRUS (POL AF) SHAPE MONS

✉ [tomasz.pietrus@shape.nato.int](mailto:tomasz.pietrus@shape.nato.int) (Corresponding author)

ORCID <https://orcid.org/0009-0009-6657-7551>

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## Abstract

The main aim of this article is to prove the importance of the strategic aspects of Integrated Air and Missile Defense with a particular focus on SBAD (Surface Based Air Defense) systems. Theoretical research methods such as analysis, synthesis, comparison and generalization were applied for this purpose. The results show that the strategic aspects of Integrated Air and Missile Defense should be considered crucial elements of military deterrence for NATO. In addition, offensive action must also be considered as a defensive posture. Thus, the formulated thesis undermines the current understanding of the problem and, therefore, may contribute to further discussions on using means of defensive deterrence for NATO. Once again, having, developing and operating such systems nowadays is highly important. IAMD has become one of the most important pillars of the security of NATO countries. Since this article is unclassified, it focuses on generic statements and does not dig into details that are normally more sensitive.

**Keywords:** Air threat, Integrated Air and Missile Defense, Missile Defense, Strategic aspect.

## 1. Introduction

According to official and unofficial reports, as well as scientific publications from the ongoing war in Ukraine, air defense is the key to allowing your own forces to action the front line (Dalsjö, et. al., 2022; Karako & Rumbaugh, 2017). Therefore, it is true that Integrated Air and Missile Defense is the most important part of today's war, and it must be taken into consideration as a crucial factor for all operations (Bodnar, 2015). An integrated international system is more effective and efficient in protecting against air attacks than an independent national air defense system (Paździorek, 2016).

A statement made by Vietnam veteran Gen Lewis Burwell "Chesty" Puller USMC, "we're surrounded; that simplifies the problem", is more than timely nowadays. We can agree that NATO is living in a difficult or it is better to say challenging time. Moreover, there is still possibility of escalation of the war in the Ukraine which can have implication for all NATO especially for the NATO's eastern flank (Michalski & Radomyski, 2021). We are surrounded by threats, challenges and some cleavages in the cohesion of the Alliance. To understand this, we must start with a little of the history of NATO IAMD to explain why we desperately need a modern response.



Therefore, the main aim of this article is to prove the importance of the strategic aspects of Integrated Air and Missile Defense with a particular focus on SBAD (Surface Based Air Defense) systems. The research based on the literature analysis and the author's experience. Article focused on the IAMD history, structure, Policy and Doctrine, and threads.

## 2. The history of NATO IAMD

Let's start with some background information on Joint Air Power. For several decades, the NATO Integrated Air Defense System (NATINADS) has been a cornerstone of NATO defense policy. NATINADS was the Alliance's only proven, verified and effective 24/7, operational capability where national authority to defend Allies was assigned to NATO on a permanent basis and where national resources were employed under a NATO Command and Control (C2) structure. In addition, NATO Air Defense was continuously influenced by technological developments and the nature of the threat (Maślanka, 2019). Then the Berlin Wall fell. Russia disappeared as a Peer State Actor, and former Soviet States became NATO members, while Russia became a Strategic Partner. In the meantime, it was observed that threats were evolving. Threats to NATO later came from the Middle East in general, Iraq in the 1990s, and Iran in particular.

At the Lisbon Summit in 2010, the Heads of State and Government (HoSG) decided that the Alliance would develop a missile defense capability to pursue its core task of collective defense. Since then, the NATO Ballistic Missile Defense (BMD) capability has been incrementally operationalized and has become a new component of the existing NATINADS to form the NATO Integrated Air and Missile Defense System (NATINAMDS).

In February 2018, the Defense Ministers endorsed the first Joint Air Power Strategy (JAPS), which provided an overall framework for the future development and employment of Joint Air Power capabilities. Joint Air Power consists of four independent fundamental roles: Counter Air, Attack, Air Mobility and contribution to Joint Intelligence Surveillance and Reconnaissance (JISR). NATO Integrated Air and Missile Defense (IAMD) is an integral component of Joint Air Power as it represents the defensive aspects of the core role of Counter-Air (Military Concept..., 2017).

## 3. NATO Political-Military Structure

NATO has not only a military structure. It consists of both military and political representatives. Let's start with its International Staff (IS). IS supports the various committees (including the Air and Missile Defense Committee) and the Council. Their role is to provide the best political advice and staff support for the Secretary General and the Council. This advice has been developed together with the insights of the members' national representatives. This means that 31 Allies have to accept a proposed decision or course of action for NATO to act. A set of committees also influence the Air Defense and Missile Defense capabilities and missions. Generally, they are responsible for POLICY.

The second body is the International Military Staff (IMS). Its role is to provide the best possible strategic military advice and staff support for the Military Committee (MC). The MC comprises the Chiefs of Defense for the Allies, and the Military Representative of each nation meet to provide military advice to the NAC regarding day-to-day business. They are responsible for CONCEPTS.

Nearly two years ago, the Air and Missile Defense Committee (AMDC) and the Defense Policy and Planning for Missile Defense Committee (DPPC-MD) and their respective mandates merged into a single, more streamlined Integrated Air and Missile Defense Policy Committee (IAMD PC).

## 4. What is NATO IAMD?

NATO Integrated Air and Missile Defense (NATO IAMD) is an essential and continuous mission in peacetime, crisis and conflict, safeguarding and protecting Alliance territory, populations and forces against any air or missile threat or attack (IAMD, 2022). It is a vital element of NATO's deterrence and Defense, which contributes to the Alliance's indivisible security and freedom of action, including NATO's ability to reinforce its deployments and to provide a strategic response (*AIRCOM SUPPLAN 11013D, 2022*).

Then, we have two permanent NATO missions:

- NATO Air Policing is one of the permanent peacetime missions (purely defensive) conducted within the framework of NATO IAMD. NATO Air Policing is a strong demonstration of solidarity among Allies, as countries with fighter aircraft capabilities help to ensure the integrity of the airspace of those countries that do not possess them. Recently, the enhancement of NATO Air Policing along NATO's eastern flank in response to the war in Ukraine continues to demonstrate Allied solidarity, as well as the importance of this mission for the deterrence and reassurance of NATO Allies.
- NATO's Ballistic Missile Defense (BMD) mission is to defend populations, territory and forces in NATO Europe against the increasing threat posed by the proliferation of ballistic missiles from outside the Euro-Atlantic area, particularly to the southeast of the Alliance's borders. In addition, it is worth underlining that NATO's Ballistic Missile Defense (BMD) mission is not directed against Russia.



Thus, NATO Integrated Air and Missile Defense provides a highly responsive, robust, time-critical and persistent capability in order to achieve a desired level of control of the air, wherein the Alliance is able to conduct the full range of its missions in peacetime, crisis and conflict (IAMD, 2022).

## 5. NATO IAMD Policy and Doctrine

Based on the IAMD policy, the NATO Integrated Air and Missile Defense System (NATINAMDS) has four functional areas:

1. Battle Management, Command, Control, Communications and Intelligence (BMC3I), to include Air Command and Control;
2. Surveillance, including Air Surveillance;
3. Active Air and Missile Defense (Active AMD);
4. and Passive Air and Missile Defense (Passive AMD).

Active AMD is split into airborne AD and SBAD (Radomyski, 2014).

Now, it is necessary to list the current document hierarchy within NATO at the strategic and operational levels. At the NAC and MC level, the policy document and the military concept for NATO IAMD were agreed upon by the NAC on May 19 and February 17, respectively. Based on the IAMD Policy, the military concept is the doctrinal guidance from the MC to interpret policy from the NAC. This document provides military direction and guidance for the NATO IAMD and the successful accomplishment of the collective Air and Missile Defense Mission of the Alliance. At the strategic level at SHAPE, the IAMD Standing Defense Plan 11000 Persistent Effort rev 2 is in use. This document was approved by NAC in February 2022. One level down, at the operational level, AIRCOM revised its SUPLAN D CONSTANT EFFORT based on SDP 11000 PE Rev 2. This document was approved by SACEUR in December 2022. Based on the observations from the Ukrainian conflict, NATO has decided to begin rev 3 for SDP 11000 in the near future.

As the SDP 11000 PE Rev 2 is an essential document for NATO IAMD, some important areas where changes or improvements have occurred should be emphasized. First of all, the inclusion of Russia as a new threat to NATO IAMD was implemented. Afterwards, the new models of posture levels were approved. Additionally, it was the inclusion of identified NATO critical infrastructures and assets to be defended with new illustrative Combined Joint Statement of Requirements for IAMD posture level model. Also, inclusion of Crisis Response Masseur in accordance with the IAMD posture level model was introduced with new dormant Rules of Engagement. Finally, a newly approved AIR C2 CONOPS was also approved. What is worth to underline a big change for NATO is new threat range, what bringing more NATO countries under the danger. The plan is coherently linked to the concept of Deterrence and Defense of the Euro-Atlantic Area (IAMD, 2022).

Currently, in the context of NATO IAMD documents, the inclusion of Russia as the most dangerous potential threat to NATO Air Defense (AD) has resulted in considering the Air challenge to SACEUR's AOR 360 degrees throughout its depth. This includes aerospace forces, cruise missiles, long-range stand-off weapons and ballistic missiles. Thus, the political guidance for the NATO BMD mission remains unchanged. Based on this, Potential threats emanating from outside the Euro-Atlantic area have been updated and addressed by NATO BMD in this revision.

## 6. New threat for NATO

In the past, NATO created Integrated Air Defense as a response to the growing air threat, including missile threats. It was assumed that the structure of the newly designed integrated air defense would correspond to the projects implemented in the appropriate states for properly defined threats:

- a. no threat,
- b. no launch,
- c. no impact,
- d. no consequence (Dobija, 2019).

In order to achieve the first stage, it is necessary to implement activities limiting the proliferation of missile weapons by all available means. We distinguish here all treaties, bans or embargoes prohibiting the sale of missile weapons. The second pillar is implemented primarily through deterrence, building its military potential and conventional strike forces to retaliate against a potential threat. It is also acceptable to use force to prevent a possible attack. The third pillar consists in implementing all possible actions to prevent the already launched rocket from reaching the predetermined target. All active means of destruction are used here to destroy the flying rocket. The last, fourth pillar, means activities aimed at minimizing the effects of the rocket impact, reaching the set goal. This is the so-called passive defense, consisting, for example, in dispersing the equipment over a larger area, making shelters, hiding or leaving the threatened area.



Nowadays, an important component of NATO's deterrence and defense posture is its military presence in the eastern part of Alliance territory. In recent years, the Allies have enhanced NATO's forward presence by establishing multinational battle groups in Bulgaria, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia. They have also sent more ships, planes and troops to NATO's eastern flank, from the Baltic Sea in the north to the Black Sea in the south. These actions demonstrate the Allies' solidarity, determination and ability to defend Alliance territory and populations.

At the 2016 NATO Summit in Warsaw, Allied Heads of State and Government agreed to establish NATO's forward presence in the northeast and southeast part of the Alliance in response to the increased instability and insecurity along NATO's periphery. In addition, in response to Russia's illegal annexation of Crimea in 2014 and its brutal attack on Ukraine on February 24, 2022, NATO has been taking extra reassurance measures for its Allies. This includes the boosting of NATO's air policing missions. NATO has deployed additional aircraft to reinforce missions over five regions: the Baltic States; along the borders of Bulgaria, Poland and Romania; the Eastern Adriatic, the Western Balkans and the Benelux countries. This air policing capability is one of three of NATO's standing forces on active duty that contribute to the Alliance's collective defense efforts permanently. They also include NATO's standing maritime forces, which are ready to act when called upon, and an integrated surface air defense system to protect against air attacks, comprising the Alliance's Ballistic Missile Defense system.

With regard to NATO's BMD mission, nothing has changed, as Russia has not been defined as a threat to NATO. The capability of defeating the threat and protecting the Critical Assets Lists relies on Voluntary National Contributions, i.e., the US European Phased Adaptive Approach (EPAA). The USA provides:

- The Shared Early Warning System based on satellite imagery,
- The Air Operations Centre in Ramstein AB co-located with NATO's AIRCOM and Ballistic Missile Defense Operations Centre,
- US Aegis destroyers operating from Spain,
- The US radar system (AN/TPY-2) in Turkey,
- The Aegis Ashore Missile System in Romania,
- Additionally, an Aegis Ashore Missile System in Poland is under construction and should be operational by 2018; however, it has been postponed until 2023-24, as announced (Dobija, 2019).

Both of the last mentioned are Transferred of Authorities (TOA'd) to NATO as part of US EPAA, and based on Indications and Warnings the US Aegis cruisers will be TOA'd to NATO as soon as a certain threat level is there (*NATO Air and Missile Defense Policy, 2019*).

Therefore, based on that, what is the current status of IAMD? First of all, the requirements derived from the actions to be executed for defending NATO's critical infrastructure and assets and to grant the transition to crisis and conflict necessary is dependent on an increasing number of capabilities by type and quantity. Definitely, there is a need for a number of additional assets. Recent history has shown necessary actions that must be taken to defend NATO's critical infrastructure and assets. In addition, it has also confirmed the good capability and readiness for the transition from AP to AD operations and the rapid transition from the execution of the SDP 11000 rev 2 towards the execution of any crisis-specific advance and/or operations plan.

## 7. Conclusion

NATO IAMD is key for Deterrence and Defense, with SBAD assets constituting a significant part of it within the whole spectrum of time and situation during peace, crisis and conflict. Importantly, it must be emphasized and remembered that IAMD is the Defensive pillar of Joint Air Power. NATO already has many Lessons Learned and Lessons Identified from the "new current, challenging time," which is essential for the revision of some basic documents. As the main principle, all NATO members must keep in mind that integration also means doing things together to achieve the common goal: peace and stability.

Due to the rapid development of ballistic missiles and the technologically advanced threat, it is difficult for individual countries to build the capabilities necessary to counter any air strikes on their own. Therefore, IAMD capabilities should be shared within the North Atlantic Alliance. As a result of the currently observed changes in the political and military situation and the increasingly frequent use of ballistic missiles in modern armed conflicts, it has been proven that it is necessary to ensure the security of the Alliance's member countries through the rapid development of missile technology and the construction of it is more modern and more perfect anti-missiles.

The development and proliferation of missile technology requires constant analysis of emerging missile systems. Additionally, defense systems must keep up with technology and respond to the latest threats (*Missile Defense Review, 2019*).

Moreover, since the beginning of the discussion, the air threat factor has been decisive. This is one of the several actions that must be taken by the international community to reduce vulnerability to ballistic missile attacks. In this context, the development of the system will be strongly coupled with the military programs of the countries from which an attack on the European territory of NATO, its population and armed forces may take place.



Finally, the political-military framework for the use of the system adopted by NATO requires further elaboration. Due to the sensitivity of the many issues in the field of operational procedures, their agreement is preceded by long negotiations and difficult compromises to be reached by all allies. The strategic nature of the program itself and its implications also depend on operational and technical progress, which is and will be important for the major allies to be able to reach agreement on critical issues from a political point of view.

#### Declaration of interest

The author declares that he has no known competing financial interests or personal relationships that could have appeared to influence the work reported in this article.

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