

National and International Perspectives of the Hungarian Ground-Based Air Defence Forces (1)

Strategic Environment and First Glimpse of Multinational Capability Development Options

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Considering the current strategic and operational environment, it is obvious that conventional war in Europe became a reality again after a long time through the Russian aggression in February 2022. Robust air defence capabilities obviously play a key role in countering traditional as well as new emerging threats. This article serves as the starting point to discuss the national and international perspectives of the Hungarian ground-based air defence forces in a short series of publications, which intend to reflect this topic area from different perspectives. This part (1) examines the current strategic environment for Hungary – in general as well as from an air defence perspective – and explores first generic options for managing and further developing air defence capabilities in the near future.

Keywords: *strategic documents, operational environment, capability management, air and missile defence, multinational cooperation*

”The power of an air force is terrific
when there is nothing to oppose it.”
Winston Churchill

As Winston Churchill clearly highlighted, air defence capabilities are crucial for protecting populations, territory and forces in an armed conflict against aerial threats. Since a respective surface-based capability is essential for any sovereign European nation and North Atlantic Treaty Organisation (NATO) ally, Hungary (HUN) has invested significantly into rebuilding its ground-based air defence (GBAD) forces.

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National strategic documents

The current National Security Strategy (NSS 2020) entitled “A Secure Hungary in a Volatile World”² was published on 21 April 2020 by the Hungarian government. The previous NSS of 2012 had to be considered obsolete, after several incidents and developments – as the Russian annexation of the Crimea, the migration and refugee crisis and the emergence of international terrorism – had considerably changed Europe’s security environment.

The NSS 2020 offers pessimistic views on the regional and global development in the current decade and identifies strategic vulnerabilities, prioritising 17 threats and challenges. In consequence, it presents potential ways to pursue Hungarian national interests. Prevention, resilience, rapid and effective response are referred to as fundamental tools against these threats and challenges and the importance of the whole of government approach is explicitly stressed.

The goal of the NSS 2020 is to ensure that Hungary will become one of the five safest countries in Europe and one of the ten safest countries in the world by 2030. This should be supported by creating “modern military of regional significance” and by further developing the Hungarian Defence Forces (HDF) in order to expand the “ability to defend [...] fundamental values and interests and to remain an active and credible contributor to Euro-Atlantic security in the future”.

NATO is referred to as “the cornerstone of Hungary’s security”, followed by a clear commitment to the obligations of Article 5 of the North Atlantic Treaty as well as to the values expressed in the NATO and EU treaties. The NSS 2020 mentions the Zrínyi National Defence and Armed Forces Development Programme³ (Zrínyi Programme) as the foundation for the HDF to become capable, credible armed forces that are significant and able to meet international commitments.

The derived and subordinate document, the National Military Strategy of Hungary 2021⁴ (NMS 2021) can be assessed to be an adequate, well-constructed document, based on a thorough analysis of the international and domestic environment. It does not only focus on non-conventional wars and non-state challenges, but also deems the chance of a conventional war realistic. In today’s light of Russia’s war of aggression against Ukraine, this assessment of early 2021 is particularly noteworthy. However, in Chapter 1 of the NMS 2021, war in the 21st century is thought to be “increasingly extending to the non-military dimensions of security” and states might be “seeking to minimise military confrontation in time and space”. Despite this, in modern warfare, it may prove sufficient for the aggressor “to just attack the enemy’s [...] command and control facilities and critical infrastructure”. As a conclusion, collective defence provided within the framework of NATO is contemplated as the prioritised option in the NMS 2021. To achieve this, adequate self-defence and deterrence capabilities are considered vital.⁵ The fact that the

² Government of Hungary 2020.

³ Previously: Zrínyi 2026 Defence and Force Development Programme.

⁴ Government of Hungary 2021.

⁵ NAGY 2022.

use of “strategic strike capabilities and high-precision weapon systems” is particularly emphasised underlines implicitly the importance of adequate air defence capabilities.

In Chapter 2, it is stated that “defending Hungary against possible attacks by [...] missile systems would be realised within the framework of the Alliance, with the active contribution of Hungary”. The necessity to develop European defence capabilities via strengthening the EU’s Common Security and Defence Policy (CSDP) and to cooperate closely in defence matters in multinational formats as the NATO Framework Nations Concept (FNC) is explicitly mentioned in Chapter 3. Subsequently, a clear statement on multilateral defence integration is made, when “multinational military formations” are considered to be “key elements of 21st century defence policy thinking, since they create strategic convergence among cooperating Member States”.

Renewal of the HDF is postulated in terms of “approach, organisational culture and defence technology” in the first paragraph of Chapter 4, whilst Chapter 4.4 very clearly elaborates on the various dimensions and conditions of interoperability that are vital for the ability and readiness to cooperate with international partners. Chapter 5.1 of the NMS 2021 comprehensively describes the required capability profile of the HDF. The tasks of “air policing and air defence to uphold the sovereignty of Hungarian and Allied airspace”, being an “integral part of NATO’s Integrated Air and Missile Defence System (NATINAMDS)” is consequently dedicated to the HUN Air Force. In Chapter 5.1.2, air defence capabilities are envisaged “against conventional aircraft of various sizes, functions and capabilities, including those used in unconventional or mass-deployed ways”.

Summing up the NMS 2021, it offers consistent guidelines for the ongoing and upcoming transformation of the HDF.⁶ Derived from the NSS 2020, the NMS 2021 also describes the Zrínyi Programme as the central building block that develops the HDF into self-reliant military forces that “remain an effective contributor to regional European and transatlantic security efforts”. The importance of modern and interoperable air defence capabilities can be found implicitly as well as explicitly in this strategic document.

Drawing a short interim conclusion on Hungary’s two basic strategic documents, I would assess the balancing act between the clear commitment to support multinational initiatives in NATO and EU, and at the same time to meet the challenging national demands of becoming a dominant regional force and ensuring Hungary’s security independently as one of the most difficult endeavours. It will be decisive for the success of HDF development in general and for the Zrínyi Programme in particular, how this tightrope walk will be dealt with by political, as well as military leaders in Hungary – not only in terms of actions, but also in prudent communication to the domestic and the international, especially the allied audience.

⁶ RESPERGER 2021: 215.

International strategic documents

Turning our gaze to the relevant international foundation documents, it is obvious that the NATO's new Strategic Concept (SC)⁷ has been published during a decisive time for the Alliance. Comprehensive, large-scale land warfare operations within a multifaceted conflict of global importance have returned to Europe in February 2022 with the Russian war of aggression on Ukraine. After two decades, during which primarily the fight against terrorism was placed on NATO's agenda and the strategic reverse in Afghanistan (AFG) showed the discomfort NATO experienced with expeditionary operations, it currently appears to be the time to swiftly focus back on the Alliance's original purpose, namely the collective defence of the Euro-Atlantic area.⁸ Whilst the last Strategic Concept of 2010 assessed that "the threat of a conventional attack against NATO territory is low",⁹ the conclusion today states that "the possibility of an attack against allies' sovereignty and territorial integrity" cannot be discounted.¹⁰ The core tasks remain broadly the same, but obviously the prioritisation has shifted to "deterrence and defence", replacing "collective defence" as the precise wording.

The self-imposed challenge to "defend every inch of Allied territory"¹¹ implies an enormous political signal to all contestants and opponents, but could also impose risks, if these clear intentions would not be backed up with the respective capabilities and forces. Therefore, next to the overarching significance of the Alliance's new Strategic Concept, for the development of capabilities and forces, the close monitoring of the subordinated – in terms of level, not necessarily in importance – documents, namely the Supreme Allied Commander Europe (SACEUR)'s Concept for the Deterrence and Defence of the Euro-Atlantic Area (DDA) and the NATO Warfighting Capstone Concept (NWCC), will be vitally important from a military point of view. The not completely utopic assessment that the lack of real action and commitment following the 2014 Wales summit declarations¹² might have influenced Putin's decision on starting a war of aggression against Ukraine should teach all NATO members that it has to be time for sufficient credibility now.

Since resilience against any kind of attack on NATO member states and their critical infrastructure is one central prerequisite to implement the 2022 Strategic Concept, the importance of protecting the sovereignty in the air domain appears logically consistent, hence air defence capabilities play a vital role in a robust force structure facing today's global security challenges. Consequently, the document states that the Alliance will significantly reinforce its deterrence and defence posture also "through strengthened integrated air and missile defence".¹³

⁷ NATO 2022a.

⁸ ARNOLD 2022.

⁹ NATO 2010: paragraph 7.

¹⁰ NATO 2022a: paragraph 6.

¹¹ NATO 2022a: paragraph 22.

¹² E.g. NRE, eFP and the 2% GDP defence spending goal.

¹³ NATO 2022a: paragraph 21.

Parallel to the new Strategic Concept, allies agreed at the 2022 Madrid Summit on the New NATO Force Model (NFM)¹⁴, which is currently being implemented. The ambitious goal is to build up a pool of 300,000 troops in a high readiness state – as opposed to approximately 40,000 NATO Response Force (NRF) troops before – and to pre-assign these to specific defence plans. This naturally includes a robust GBAD posture.

On the EU side, the “Strategic Compass for Security and Defence” (EU Strategic Compass)¹⁵ as the EU’s new flagship foreign and security policy document has been published by the EU Council on 21 March 2022. It was intended to point the way forward for the EU’s CSDP in the years to come. The official release gained additional importance by the Russian war of aggression against Ukraine, which made determined measures for strengthening the EU’s security and defence policy seem indispensable. The document seems to be a clear signal towards the perception that the EU will finally become a separate powerful player in security policy, being integrated into NATO as its capable European pillar. The quote “We need to be able to act rapidly and robustly whenever a crisis erupts, with partners if possible and alone when necessary”¹⁶ proves explicitly that the EU is willing to take on more responsibility for its own security and strives for a certain – and surely necessary – degree of strategic autonomy. At the same time, the EU Strategic Compass emphasises the importance of the transatlantic bond and the prioritised goal of strengthening of EU–NATO cooperation for mutual benefit. The transatlantic relationship can thereby be strengthened, and it is likely that NATO will benefit from more self-confident EU ambitions in security matters and enhanced European defence capabilities.

Not only in my assessment there is now clearly the necessity to swiftly substantiate and operationalise the claims of this new flagship document, to create a shared strategic culture, to improve European defence integration and to increase the coherence in European security policy.¹⁷

Turning to more specific contents of the EU Strategic Compass with regards to the focus of this article, the air domain is deemed “critical to secure [the EU’s] territories and populations” and “uncontested access to the airspace” is explicitly claimed, whilst it “is being challenged by anti-access and area denial (A2AD) strategies of [...] competitors”.¹⁸ In order to maintain the EU’s advantage in the air domain, “the development of next-generation and fully interoperable capabilities, notably future combat systems as well as air defence systems” is considered to be *sine qua non*, listing “the focus area A2AD capacities and Countering Unmanned Aerial Systems (C-UAS)” as main contributions to the air defence dimension. The document claims that all developments in future combat air systems shall be progressively integrated into the existing force structures, stressing interoperability as the main prerequisite.¹⁹

Regarding NATO–EU cooperation and the complex challenges of this decade, a further enhancement of the already established strategic partnership is more than

¹⁴ NATO 2022b.

¹⁵ Council of the European Union 2022.

¹⁶ Council of the European Union 2022: 3.

¹⁷ KNUTSEN 2022: 170.

¹⁸ Council of the European Union 2022: 24.

¹⁹ Council of the European Union 2022: 32.

appropriate. A stronger role for the EU will contribute to more vitality of NATO, especially in managing emerging crises. Following this logic, in January 2023, the third Joint Declaration²⁰ on NATO–European Union cooperation was signed. The main message contains the symbolism of transatlantic unity in two respects: supporting Ukraine and facing the growing geopolitical competition with China. Thereby, the priorities agreed in NATO’s new SC and the EU Strategic Compass are adequately reflected.²¹

Strategic and operational environment

Considering the current strategic and operational environment apart from the related documents, it is obvious that conventional war in Europe became a reality again after a long-time through the Russian aggression in February 2022. Both EU and NATO showed swift and appropriate responses by a variety of measures and based on allied capabilities, including military power. All players seemed to be aware that the alliances could not just return to Cold War setting and concepts, because the political world order and the balance of power have moved further. Generally, the lesson has to be learned that the actions following the 2014 Crimea annexation have proved as insufficient or incredible, even though in theory, various things had changed in the perception and the concepts of NATO and EU. Therefore, from now on, intentions and promises to strengthen the military posture will have to turn into sincere measures, in the respective armed forces of each individual member state as well as for the overall capability spectrum of the transatlantic and European alliances.

Concerning the nature of employed military force and with a focus put on air defence issues, several insights can be obtained. Russia’s A2AD strategy and the employment of cruise, ballistic and hypersonic missiles in the war against Ukraine has demonstrated the criticality of air and missile defence capabilities. The respective threat spectrum has significantly changed in the recent years. The “traditional” air assets as aircraft, helicopters, cruise and ballistic missiles have been complemented by unmanned aircraft systems (UAS) of different dimensions, including drone swarms and loitering munition,²² as well as more modern technologies as hypersonic missiles. Especially the new challenges of UAS and drone swarm employment could not only be observed in Ukraine, but also in other recent conflicts as in Syria, Libya and particularly in the Nagorno–Karabakh conflict²³ in 2020. The so-called LSS (low, slow and small) target threat of micro drones and mini UASs are even available on the civil market and can be converted into weapons by self-construction. Effective air defence against LSS threats can only be achieved by sophisticated sensor and precise effector systems.²⁴

²⁰ EU–NATO 2023.

²¹ MONAGHAN et al. 2023.

²² A loitering munition is an aerial weapon system category in which the munition loiters (waits passively) around the target area for some time and attacks only once a target is located.

²³ HECHT 2022.

²⁴ KRAJNC–VALLUS 2021.

Drawing conclusions for air defence capability management, the full target spectrum and all ranges of defensive systems have to be considered. Since the end of the Cold War, especially the lowest layer with short range air defence (SHORAD) and very short range air defence (VSHORAD) systems, often constituting the land forces' army organic air defence (AOAD) capability – to provide immediate and integrated cover for the land forces – have been significantly neglected. The experience in Ukraine demonstrates how important this capability remains in modern warfare to counter remotely piloted threats, particularly in the LSS spectrum.

However, next to the emerging threats in the closest vicinity, ballistic missile defence (BMD) remains an important factor, not only considering Russia and Iran, but also the risk of non-state actors potentially obtaining a respective capability. Therefore, sophisticated missile defence measures are vital as the tool facing these developing threats.²⁵

A further area of experience from the Russian aggression is the paramountcy of resilience and critical infrastructure protection. The Russian armed forces have been massively and deliberately attacking Ukrainian critical infrastructure, causing massive damage and long downtimes in the electricity and water supply. President Volodymyr Zelenskyy's conclusion of 30 December 2022 was obvious and remains true: The Ukrainian air defence capabilities need to be further enhanced.²⁶

This deduction is even more valid for many European nations, since their critical entities are even more interconnected and interdependent, which makes them more vulnerable. Since not only kinetic attacks, but also cyber or hybrid actions may affect vital processes, action is urgently needed to step up the EU's capacity to protect itself against attacks on critical infrastructure. Incidentally, increasing resilience is not only essential in wartime. Even non-state actors – or also extreme weather incidents – can generate devastating impacts on the continued functioning of a state and its society. Therefore, infrastructure resilience is vital to ensure national security and safety; this includes the awareness about threats and vulnerabilities in the country's or organisation's critical systems.²⁷ Taking into account contemporary options of UAS employment, comprehensive air defence capabilities constitute an indispensable contribution to effective critical infrastructure resilience.

Summing up the implications of the current environment and the war in Ukraine, the need for a credible deterrent force with a powerful and robust air defence capability as a key element is essential.

Multinational capability management

As extracted from the foundation documents above, NATO's new Strategic Concept and the resulting NFM demand a greater European responsibility and equitable burden-sharing, whilst the EU Strategic Compass calls the EU member states for more strategic autonomy and to thereby strengthen the European pillar of NATO. If the Europeans

²⁵ FASHOLA 2020.

²⁶ Upday 2022.

²⁷ GRIGALASHVILI 2022.

strive to take on their full share in ensuring security for the transatlantic community, then a coherent military force contingent capable of covering the full military mission spectrum must be developed. It should be obvious that particularly those 22 European nations that are members of both NATO and EU should take most initiative in multinational procurement cooperation, since their investment in modern military capabilities will serve both alliances.²⁸

In my opinion, there are several reasons why it makes sense to start capability development multilaterally. No other nation could individually set up similar capabilities to those with which the USA backed up European security during the last decades. The technical solutions for modern military forces are mostly very expensive, thus every option to share investments is useful to make the modernisation process more affordable. Therefore multinational strategic dialogues and partnerships as well as joint armament cooperation and procurement is necessary. Joint acquisitions and integration of forces are already happening on a limited level in Europe. For instance, Danish sailors serve on German naval vessels, Belgium and the Netherlands have joint naval capabilities,²⁹ and a Dutch armoured brigade is assigned to a DEU army division. Obviously, now more countries must be encouraged to undertake similar efforts. Every European government has to understand that separately thought and planned forces, somehow put together, will never be efficient enough to provide adequate deterrence and defence in and for Europe – no matter how big potential additional investments in military capabilities will be.

However, the argumentation is not solely on financial burden sharing. It is *sine qua non* that national capabilities must be synchronised into one big comprehensive European force package, guaranteeing not only technical interoperability, but also adequate integration in various aspects.

In this regard, the experience with the EU battlegroups has taught an important lesson. Multinational formations that are brought together only temporarily to stay in a high readiness standby status for several months, do not work properly. Huge efforts were made to bring the artificially accumulated units together. It turned out that the preparation time for the contingent was hardly long enough to overcome the most important cultural and interoperability issues. The goal for similar constructs should be though to share experience, to fully understand synchronised concepts and to create synergies between the constituent national units.³⁰

Permanent multinational formations have to be created, which conduct a shared capability management across the DOTMLPFI³¹ spectrum. The national building blocks, assumingly brigade or regiment size level, must train and exercise together with their multinational neighbouring units. Doctrines, training, leadership culture can be synchronised properly if the participants are aware that the construct is not only temporary, but designed as a longer term multinational formation.

²⁸ BRAUSS–MÖLLING 2021.

²⁹ BERGMANN–CICARELLI 2020.

³⁰ BISCOP 2022.

³¹ DOTMLPFI – Doctrine, Organisation, Training, Material, Leadership, Personnel, Facilities, Interoperability.

Undoubtedly, this massive endeavour requires extensive coordination effort and a lot of mutual trust, but this way forward seems to be the only option to get rid of today's fragmented capability management processes. Moreover, the NFM supports this idea and encourages allies to cooperate and organise their forces in larger multinational formations. In the medium term, the goal is to assign these formations to the different regional defence plans.

From my point of view, it is apparent that often the process of starting multinational cooperation projects is complicating and frustrating due to the diversity of perspectives and opinions. To avoid this, possibly a promising way is to generally start bilaterally. After an initially bilateral cooperation is sufficiently consolidated, selected additional multinational elements could be integrated in a second step. With this procedure, an appropriate pace can be selected to deepen the bilateral cooperation first and to prudently extend the formation by opening it to further nations at a later stage. Ideally, all currently existing binational programmes have to be examined if and how they could serve to build the foundation for a larger multinational formation. However, the final objective has to be a status where a permanent assignment of the respective military forces' building blocks is established and where similar cooperations span across the full capability spectrum of military forces in NATO and EU. Once sufficient mutual trust has developed and the ice is broken, the benefits of such true, integrated, multinational formations will be manifold.

Focusing on the field of Air and Missile Defence (AMD) capability management, multinational cooperation can comprise all layers of air defence and the full DOTMLPFI spectrum. Equipment-wise single components of an air defence capability can contribute to the overall goal, without being a full capability itself. The cooperation potential spans from combined training, exercises, data and information sharing, hosting agreements, doctrine development to common procurement.

Looking at capability development and procurement costs, the upper layer provides the best example why it is reasonable to act together with partners. Due to the sophisticated technology that is necessary to counter ballistic missile threats, the weapon system equipment is extremely expensive. Cooperative capability development could in this example mean that one nation procures the sensor, while the other purchases effectors and a third ally already possesses a suitable command and control infrastructure.

As NATO BMD is one of the Alliance's permanent missions – as a component of the NATO Integrated Air and Missile Defence (IAMD) framework – it will become more important in the future to have C2 sensors and effectors in different locations within allied territory, thus achieving a larger area of coverage and protection. Cooperative efforts permit allies and partners to contribute to these shared deterrence and defence goals more cheaply and more effectively.

In my opinion, the AMD cooperation framework with its existing formats represent the best entry area for formal multinational cooperation. Even though always compromises have to be reached in such a framework regime, it appears to be the only way to achieve common goals in developing or managing a GBAD capability. Therefore, the Hungarian

participation in the Modular GBAD³² and European Sky Shield Initiative (ESSI)³³ formats, including the clearly perceptible determination of playing an active role in these initiatives must be appreciated. I will provide a closer look into the several formats to facilitate structured multinational cooperations in a separate article within this publication series. But generally, a bilateral intent can be an appropriate and promising starting point, which can develop towards a capable and integrated binational formation. A solid foundation like this can then continuously be complemented by other joining nations to a powerful, multinational air defence formation with a permanent assignment.

Conclusion

The Russian aggression in Ukraine substantiated that freedom and prosperity in Europe cannot be achieved solely through economic power and common laws, but primarily through additional and determined defence readiness and the respective capabilities. The European countries will only be able to achieve this through prudent cooperation in capability development and by transnational specialisation. Not every ally has to provide the full spectrum of military options separately, but the EU as a whole has to act as a global and credible player in security matters. Notably, a militarily capable EU does not contradict NATO, but is rather the prerequisite for NATO to continue to act as the main guarantor of security and stability on the European continent.

The logic of cooperating with experienced and still more advanced AMD nations like Germany and the Netherlands will hopefully work for Hungary as well: e.g. in German resources for supporting the developing of the Hungarian GBAD forces were scarce in 2023, due to providing Patriot weapon systems to Ukraine and in parallel operating air defence contingents in Slovakia, Poland and the Baltic states. On the other hand, an “investment” by supporting an emerging and ambitious ally will pay off as a true relief in the medium term, when the assistance and provision converts into being more bidirectional so that future operational burdens can be shared.

Concluding this first portion, I tried to shed some light on the strategic environment and some aspects of multinational cooperation, always keeping the perspective on the GBAD capability spectrum in mind. Having elaborated that any prudent option for future capability development should always include trust-based, multinational cooperation or even integration, an analysis of the national air defence capabilities of the HDF will follow in part 2.

³² NATO’s Modular GBAD High Visibility Project strives for a modular GBAD solution responding to air threats along the entire very short, short and medium range spectrum.

³³ The European Sky Shield Initiative aims at creating a powerful air defence posture through joint acquisition of air defence equipment and missiles.

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