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**Challenges to NATO's Baltic Air Policing:
ensuring air defence through rocket artillery in
the Baltic region**

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Abstract: The deterioration of the security situation on the borders of Eastern Europe has shown the need for countries to maintain and modernize the capabilities of their armed forces to deter eminent threats. However, countries with less capacity for transformation benefit greatly from alliances that they are part of, as in the case of Estonia, Latvia and Lithuania. With inexpressive air power capacity, the Baltic countries depend on NATO to maintain effective air policing in the region. Nonetheless, NATO fighters are particularly vulnerable to Russian A2/AD assets, such as the S-400. In this sense, the main objective of this policy paper is to show how rocket and missile artillery are vital to Baltic defence, especially due to their mobility and ability to deploy long-range precision capability to seek Russian area denial equipment, and also to assess how alliance's artillery can be used to enhance Suppression and Destruction of Enemy Air Defences.

Introduction

It is important to highlight that, despite the current situation in Ukraine, a conflict between NATO and Russia is unlikely. Nonetheless, reports from the RAND Corporation already expressed a slight concern with a possible war with limited aims in the Baltic region. After conducting extensive tests through wargames, the report concluded that, amongst other things, Russia has enough capabilities to seize a vast majority of Baltic terrain in less than three days (Shlapak; Johnson, 2016). Another study conducted at the Baltic Defence College concluded that regarding conventional capabilities, Russia has incontestable conventional supremacy in the region, being able to mobilise 27 battalions without stopping its military activities in Ukraine (Veebel, 2018).

Although these assessments sparked intense debates on the matter, they were especially focused on the deployment of ground and manoeuvre forces. Notwithstanding, as highlighted by Deveraux (2021), the rise of rocket artillery in Europe was absent of the scenarios assessed, an element that can reinforce Baltic air defence and strengthen NATO's deterrence posture.

According to NATO's Deterrence and Defence Posture Review, the organisation's goal is to "bolster deterrence as a core element of collective defence and contribute to the indivisible security of the Alliance" (NATO, 2012). A robust deterrence is crucial to enhance the alliance's cohesion, and to maintain strategic stability within its security environment. NATO's deterrence posture is "threefold": nuclear forces, conventional forces, and missile defence. For the purposes of this analysis, the focus will be on conventional forces and missile defence.

Among NATO's many deterrence assets is the Baltic Air Policing (BAP), a defence cooperation of role specialisation within the alliance, mainly focused on

protecting the Baltic air space through scrambling and Quick Reaction Alert (QRA)¹. This is one example of NATO's resolve to maintain the security of its members.

In light of the Russian invasion of Ukraine, NATO strengthened its Eastern Flank to ensure the defence of its allies, including air defence batteries in Poland and Slovakia. Nonetheless, due to previous Russian intense military moves near NATO's Eastern Flank borders, Baltic leaders expressed their demand for the strengthening of the policing program to include protection against the most varied forms of aerial threats amid fears of a Russian invasion (Defense News, 2021).

Another factor to be considered is that NATO aircraft in the region currently have no other form of protection, being extremely vulnerable to Russian S-400 batteries stationed in St. Petersburg and Kaliningrad. This greatly limits the alliance's ability to leverage its air power in any operational scenario in the region.

The Baltic Air Policing

The Baltic Air Policing mission is a technical cooperation of role specialisation in defence that takes place within the scope of NATO's Reaction Force, where through the practice of scrambling or QRA, NATO must protect the airspace of Estonia, Latvia and Lithuania. This type of arrangement makes it possible for members of the Organization who do not have airpower or patrolling skills to be assisted by other NATO members to fill this gap and safeguard the integrity of the area in question. Within the Alliance, preserving the integrity of airspace is conducted as a collective task, using fighter and ISR² planes for the air policing of its member countries. In this sense, air policing is a purely defensive mission.

¹ In military aviation, scrambling or Quick Reaction Alert (QRA) is the act of mobilising combat aircraft quickly and effectively for the purposes of area denial. The mechanism can be activated in response to an immediate threat, usually to intercept hostile aircraft.

² Intelligence, Surveillance and Reconnaissance.

Since the 1970s, NATO has established a comprehensive system of airspace surveillance and management assets, as well as the aforementioned QRA capabilities to intercept possible breaches of its air space. Nonetheless, countries without significant aerial capabilities joined NATO as permanent members in 2004: the Baltic States (Estonia, Latvia, and Lithuania), and Slovenia. At the time, none of these countries had been able to acquire the fighter planes needed to carry out air patrol missions, but as this practice is a collective task of the Alliance, it was necessary to find a solution. Hence, based on the proposal of NATO officers, the Alliance's responsible committees decided that Italy and Hungary would carry out QRA flights over Slovenia, while all NATO allies would conduct rotating patrolling flights over the Baltic air space (Zandee et al., 2016). In 2012, NATO decided to make air patrolling the Baltic a fixed activity with no date set for reviewing the agreement.

Over a period of ten years, the air patrolling of the Baltic was carried out from a single location, the Šiauliai Air Base in Lithuania. Belgium was the first country to head the mission, followed by Denmark and the United Kingdom (Harper et al., 2018). During the Crimean crisis in 2014, the United States reinforced its presence in Lithuania by deploying six F-15C Eagle fighter jets to enhance aerial security in response to Russian interference in Ukraine and the increasing number of Russian-led airspace violations (McNamara, 2016). The presence at Šiauliai Air Base doubled, while another rotational operation started at Ämari Air Base in Estonia, starting with a Danish contribution. In May 2014, a fourth contribution was deployed at Malbork Air Base, Poland, with France heading the first rotation of patrolling missions (Zandee et al., 2016).

For NATO, maintaining the patrol program according to the current model is the more politically, operationally, and financially sustainable solution. Nonetheless, other

problems arose highlighting some vulnerabilities of the Alliance and its air patrol in the region. Due to previous Russian intense military moves near NATO's Eastern Flank, as well as countless attempts to breach Baltic air space, Baltic leaders expressed their intentions for the strengthening of the policing program to encompass protection against the most varied forms of Russian aerial threats. This is because, currently, NATO does not have any other type of air defence in the region, and its aircraft are particularly vulnerable to Russian A2/AD assets such as the 'S family', especially the S-400 batteries stationed on the Western Military District (Muzyka; CNA, 2021).

Air Power/Defence Vulnerabilities and Solving the Problem

Since the illegitimate annexation of Crimea by Russia in 2014, the security situation on the borders of Eastern Europe have pretty much deteriorated, which also affected the diplomatic relations between NATO and Russia. As a response to the increased instability in the region, NATO created in 2016 the Enhanced Forward Presence, tailored to deploy combatant power along the eastern flank of the alliance in order to deter any attempt of conventional attacks. NATO's Enhanced Forward Presence created four multinational battalion-size battlegroups stationed at the three Baltic States and Poland, led by the US, the UK, Canada, and Germany (NATO, 2022). After Russia's invasion of Ukraine in 2022, NATO decided to create four additional battlegroups to be stationed in Slovakia, Hungary, Bulgaria, and Romania.

The battlegroups stationed in the Baltic region have approximately 5,000 troops total. Nonetheless, the report from RAND concluded that a total of seven brigades (around 35,000 troops) were necessary to ensure effective deterrence. In this sense, Deveraux (2021) points out that the Enhanced Forward Presence is basically a tripwire, and should deterrence fail, the units are supposed to prevent Russia from achieving its operational objectives.

Notwithstanding, the main problem for NATO regards the increase in Russia's anti-access and area denial capabilities, especially with the alliance's air power limitations due to inadequate air and missile defence in the Baltic region. A2/AD systems usually encompass air defence, theatre striking capabilities (such as PGMs, ballistic and cruise missiles) and counter-maritime forces (Williams, 2017). Currently, the alliance's main asset of deterrence in the region is the Baltic Air Policing, which is essentially a peacetime deployment. In a possible scenario of conflict, NATO aircraft supporting the Baltic would have to face Russian air defence systems, which could put the alliance's aircraft in a complicated situation. Many of NATO's aircrafts committed to the Baltic cannot operate with full effectiveness flying in low altitudes, making them extremely vulnerable to S-400 batteries stationed along the Russian Western Military District, especially in Kaliningrad and St. Petersburg.

NATO also has its anti-access and area denial assets deployed in Europe, although in less quantity and in lower depth. The PATRIOT set of defence systems, for example, provide air defence but with an optimised ratio of interception only against ballistic missiles, implicating in a limited coverage. In the Baltic Sea, the sea-based platforms of SM-6/RIM-174 – a multi-mission missile designed for anti-air warfare, terminal ballistic missile defence, and anti-ship strikes - can barely cover the entire territory of Lithuania, and covers less than half of Estonia and Latvia. Nonetheless, although important in a scenario of crisis, the aforementioned assets would have no effectiveness in destroying stationary targets such as Russian air defence systems.

In addition, according to a study conducted by the Estonian think tank International Centre for Defence and Security (ICDS), Russian has 27 combat air squadrons within the Western Military District, as well as additional aircraft based in bordering regions capable of enhancing Russian air superiority in the region, what could

eventually assure their *fait accompli* (Harper et al., 2018). Currently, the Baltic States counts on several surface-to-air missiles and radars to mitigate the situation, such as the RBS-70, the Stinger short-range anti-aircraft missile, medium range NASAMS missiles, and even the late Soviet ZU-23-2 anti-aircraft guns (Peck, 2021). Nonetheless, there is still a huge capability gap regarding the full range of systems required for a comprehensive and multi-layered air defence.

In this sense, this analysis understands that NATO's air ability to rapidly reinforce the Baltics, neutralise anti-access equipment and affect the outcomes of an eventual contingency on the ground could count on an important 'ally': rocket artillery in its most varied forms.

Recently, the US Army and Air Force have been working together to develop operational doctrines on how to use long-range land-based missiles together with rocket artillery to destroy enemies' anti-aircraft systems (Breaking Defense, 2020). It was possible to determine, however, that Army artillery would have more advantages at the most basic level, such as 'concealability', range, and complexity. In general, rocket artillery systems – especially long-range – are essential when thinking of a more robust defence plan for the Baltic region, especially because their enhanced strategic mobility makes it possible for the launcher to deploy along the theatre to conduct rapid infiltration, thusly prosecuting vital area-denial equipment such as the S-400. In this sense, ground forces using High Mobility Artillery Rocket Systems (HIMARS) and Multiple Launch Rocket Systems (MLRS) would play an essential role in suppressing and saturating Russian advanced surface-to-air defence, being a key element in enabling freedom of movement for NATO's airpower (Shlapak; Johnson, 2016).

Final Recommendation

Rocket artillery systems are also vital assets to enhance NATO's ability to conduct Suppression and Destruction of the Enemy Air Defences (SEAD/DEAD) in the region, contributing for multi-national fire integration. The exercise Rail Gunner Rush using MLRS conducted in 2020 in Estonia, and the exercise Europe Defender 2021, which used massively HIMARS assets, made a good point for how artillery can play a fundamental role in suppressing the enemy to reinforce the Baltic rapidly through airpower. This will send clear signals to Russia that their A2/AD equipment does not necessarily give them total dominance over the Baltic may a belligerence occur.

Balancing ashore, aerial, and even naval capabilities is an equation to be solved according to the threat environment. Nonetheless, the idea that the BAP alone is enough to defend Baltic allies is not only outdated, but also inadequate. Therefore, the integration of rocket artillery in the Baltic defence plan is strongly recommended since it is an essential variable capable of modifying the battlefield calculus, strengthening the alliance's credibility towards its smaller allies.

References

- Aylward, M. K. (2021, May 20). *Rocket Artillery Can Keep Russia Out of the Baltics*. War on the Rocks.
<https://warontherocks.com/2021/05/rocket-artillery-can-keep-russia-out-of-the-baltics/>
- Defense News. (2021, May 24). *NATO hopes to launch new defense tech accelerator by 2023*.
<https://www.defensenews.com/global/europe/2021/05/24/baltic-states-vow-to-tighten-their-defense-ties-with-an-eye-on-russia/>
- Freedberg, S. J., Jr. (2021, May 10). *Army Says Long Range Missiles Will Help Air Force, Not Compete*. Breaking Defense.
<https://breakingdefense.com/2020/07/army-says-long-range-missiles-will-help-air-force-not-compete/>
- Harper, C., Lawrence, T., & Sakkov, S. (2018). Air defence of the Baltic states. *International Center for Defense and Security*. Unpublished.
- Lucas, E. (2022, February 16). *Recommendations for Baltic Sea Regional Security*. CEPA.
<https://cepa.org/close-to-the-wind-recommendations-for-baltic-sea-regional-security/>
- NATO. (2012). *Deterrence and Defence Posture Review*. Retrieved November 2021, from https://www.nato.int/cps/en/natolive/official_texts_87597.htm
- NATO Defense College. (2019). *New RD Publication: Why the Baltics matter. Defending NATO's North-Eastern border*. NDC.
<https://www.ndc.nato.int/news/news.php?icode=1328>
- NATO's Military Presence in the East of the Alliance*. (2022). NATO.
https://www.nato.int/cps/en/natohq/topics_136388.htm
- Peck, M. (2021, September 1). *The Baltic States Need More Defenses Against Russia's Air Force*. The National Interest.
<https://nationalinterest.org/blog/reboot/baltic-states-need-more-defenses-against-russias-air-force-192823>
- Shlapak, D., & Johnson, M. (2016). *Reinforcing Deterrence on NATO's Eastern Flank: Wargaming the Defense of the Baltics*. RAND Corporation.
https://www.rand.org/pubs/research_reports/RR1253.html
- Veebel, V. (2018). NATO options and dilemmas for deterring Russia in the Baltic States. *Defence Studies*, 18(2), 229–251.
<https://doi.org/10.1080/14702436.2018.1463518>
- Williams, I. (2018, November 29). *The Russia - NATO A2AD Environment*. CSIS.

<https://missilethreat.csis.org/russia-nato-a2ad-environment/>

Zandee, D., Drent, M., & Hendriks, R. (2016). *Defence cooperation models. Lessons learned and usability*. Clingendael.

https://www.clingendael.org/sites/default/files/pdfs/Report_Defence_cooperation_models.pdf