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## **Non-nuclear Strategic Deterrence and pre-emptive approaches of Strategy. Poland and the Future of Deterrence by Denial. New A2/AD?**

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**Adapt** Long Read



This paper was supported by U.S. Embassy in Slovakia.

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Adapt Long Read - Analytical Paper  
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February 2023

**NON-NUCLEAR STRATEGIC DETERRENCE AND PRE-EMPTIVE  
APPROACHES OF STRATEGY. POLAND AND THE FUTURE OF DETERRENCE  
BY DENIAL. NEW A2/AD?**

*Matej Rafael Riško*

**SUMMARY AND RECOMMENDATIONS**

- Poland's strategic situation is pre-determined by the use of depth and includes the Baltic countries, Belarus, and Kaliningrad in a broader sense.
- The HOMAR acquisitions ensure the possibility of active projection and distribution of military power over a wider geographic region. The pre-emptive nature of MRL capabilities will form a vital part of a broader strategy of deterrence by denial.
- These capabilities will have the ability to suppress the Russian SAM advantage in Kaliningrad and suppress the Russian A2AD bubbles in Kaliningrad and Belarus.
- Rocket artillery (MRL) will be an essential part of the concept of layered enemy destruction at a tactical, operational, and strategic level and will create its own version of A2/AD capability.

**INTRODUCTION**

Poland's plans to acquire rocket artillery from Lockheed and Hanwha raise the question of what the Polish leadership is pursuing, what strategy will be followed, and how the strategic environment in Central and Eastern Europe will change. The article discusses three main lines. The first is the strategic reality of the Polish position; the second is the structure of the use of layered enemy destruction and what is the strategic logic of the systems of programme HOMAR. A separate section will be devoted to the concept of strategic stability in the context of the acquisitions of missile artillery into the arsenal of Poland (and other CEE countries).

**THE STRATEGIC REALITY OF POLAND**

The key strategic document defining the Polish position in the international system is the “National Security Strategy Of The Republic Of Poland” from 2020. The strategy explicitly mentioned Russia as a main threat, especially

in the context of the threat of large deployment and use of military power and A2/AD capabilities in Kaliningrad (NSS of Poland 2020). The well-known RAND study identifies the Suwałki gap and E-67 road as the main problematic area of the region's vulnerability (Shlapak and Johnson, 2016).

Although the Suwałki gap became an issue for COA analysis (wargaming) on both sides (in the Russian case, it is Ładoga-2009, Zapad-2009 and Poryv2009), it is possible to question the role of this area as a key land control point. Instead, it should rather be set into the wider strategic context. Poland would challenge the military operations on the less elastic line from a crossroad and a logistic high-value point in Raczki to Marijampolė city in Lithuania. The Niemen river is a dominant natural barrier in this area and would be used for stabilizing the control of the terrain. Operational direction situated in Grodno could develop an offensive on the line Grodno-Białystok from the northeast and Baranovichi-Białystok from the East. Augustów and control of E67 have a dominant role in potential defence on the line Grodno-Białystok. The key control point for encircling the Białystok will be Sokółka from Grodno operational direction and road 19. From the south, it presumably will be the operational direction Brest, which can develop the offensive protected by the right bank of Bug from Brest to Bielsk Podlaski through road 66 and railroad from Brest with a key logistic point in Czeremcha and after through the road 19 from Zabłudów.

To model the situation, we can use the Ładoga-2009 exercise, which contained the front line of the exercise with a length of about 1,500 km and the exercise zone about 300 km wide (Kaas, 2009). Russian military exercises in 2009 - Kavkaz, Zapad and Ładoga, were integrated into the Osen 2009 (Autumn 2009 set of exercises) (Norberg, 2018). Together with the fact that Russia conducted the exercise of its Strategic Forces involving dual-use capable systems on the same day as Zapad/Ładoga, tells us a lot about the preferable strategy. In the approach to military operations, escalation dominance is seen as a defining strategic option which should be followed in a flexible way by creating and extending the room for manoeuvres and moving on the escalation ladder on a strategic, operational and tactical level. Some analysts critically mentioned that "Zapad 2009 included a nuclear strike against Europe, but this claim comes from a single source, a report by the Polish magazine Wprost." (Tertiaries, 2018) The goal is not to provide a

complex answer to the Russian view on escalation management, but according to the structure and observations of 2009 exercises and some other de-escalation practising, including a conventional approach to this strategy, we can conclude that dynamic use of nuclear power has an optional character depending on the situation and remains as an element in this matter (Kofman and Fink, 2022).

The problems of potential disruptions of the Polish forces on the northern-eastern border remain the main issue. However, there is another operational goal which is the possibility to develop an offensive with fait accompli potential on the line Brest- Międzyrzec Podlaski- Siedlce- Łuków- Mińsk Mazowiecki-Warsaw on the E30/A2 road and protect the forces from the north by the left bank of the Bug River. For the situation modelling, we can use Operation Bagration, which uses many of these strategic points in the theatre area, and it is a reason why Poland established a new 18<sup>th</sup> mechanized division with Headquarters in Siedlce.

#### **CONVENTIONAL DETERRENCE BY DENIAL AND FIREPOWER CAPABILITIES AS A SOLUTION. A NEW APPROACH TO A2/AD?**

The new concept of “Polish Defence in the Perspective of 2032” deals with the issues of conventional threats and the relatively fluctuant character of the part of the north-eastern and eastern border, explicitly mentioning conventional deterrence and own A2/AD capabilities (Polish Defence in the Perspective of 2032, 2017). According to this document, Poland wants to implement a deterrent capability (mostly) based on firepower. “We will strive to multiply firepower, which will lead to the creation of deterrent capabilities. The means to reach this goal will be the introduction of assets diminishing enemy’s combat capabilities.” (Polish Defence in the Perspective of 2032, 2017).

Using MRL capabilities as a tool for area denial is not a completely new idea, although it was usually considered as a part of the palette of tools and not as a main deterrence body (Gordon and Matsumura, 2013). However, the development of new precision strike capabilities such as precision-guided artillery missiles like GMLRS or tactical ballistic missiles like ATACMS allows Poland to incorporate it as a dominant strategic tool in a similar way as more traditional kinetic non-nuclear weapons with strategic effects such as cruise missiles, ballistic missiles, missile defence systems, UAVs etc. As

Hoffman and Alberque say: “The impact of potential non-nuclear strategic weapons may be tactical or operational, rather than strategic, in nature. Indeed, whether a weapon system constitutes a strategic capability often depends entirely on the context of its employment.” (Hoffman and Alberque, 2022). In this context, it should be noted that most of the strategic objectives relate to the Kaliningrad region and should be used on a more “offensive-defensive” way, for other possible targets Poland's rocket artillery lacks in reach. For strategic deterrence purposes on the east part of the bubble, ballistic missiles for the attacks on HVTs would be used.

Poland announced the acquisition of HIMARS and K239 Chunmoo systems within the comprehensive acquisition programme HOMAR. From the point of the organizational structure, Poland wants to create 28 rocket divisions DMO (Dywizjonowy Moduł Ogniowy). DMO includes three artillery batteries and consists of six launchers, a command battery, a logistic company and a DMO command. Multiple rocket launcher system WWR (Wieloprowadnicowa Wyrzutnia Rakietowa) will be based on three pillars (Marciniak, 2022). Launcher modules HIMARS on domestic truck Jelcz integrated with Polish Integrated Combat Management System TOPAZ ICMS, launcher modules K239 Chunmoo on domestic truck Jelcz integrated with system TOPAZ, and acquisition of others domestic supplement components such as ammunition trucks, reconnaissance vehicles etc. Poland wants to create 16 DMOs using K239 Chunmoo MLRS, which will mean 288 missile vehicles and 16 DMOs using HIMARS MRL (216 missile vehicles).

HIMARS can use 227mm GMLRS missiles with a 70, 100 or 150km range and a 70kg warhead or ballistic ATACMS missiles with a 300km range. K239 Chunmoo can use GMLRS missiles or South Korean missiles of 131 mm (K33), 230 mm (KM26A2), 239 mm (GPS-aided INS), 400 mm and 600 mm (KTSSM-II) calibre. The range is from 36km (K33) to 290km (KTSSM-II).

## **LAYERED ENEMY DESTRUCTION AND THE STRATEGIC LOGIC**

The new concept of the battlefield is based on flexibility. Defence in depth remains important, but there is a significant difference between the past, relatively coherent space between disruption and the main battle zone, a new concept with an enlarged disruption zone and a relatively high

dispersion of forces. Precision fire is the key new A2/AD capability as well as the whole concept of conventional deterrence (Mearsheimer 1983). Michael Holthe defines it as: “The ability to precisely place a mortar round, artillery shell, cruise missile, etc., exactly where it will be most damaging to the enemy, at greater range than our adversaries—and the ability to protect those fires assets as well as our manoeuvring forces as they drive toward the objective.” (Holthe, 2018) For deterrence purposes, MRL capabilities will perform two main tasks. The first one is the “ability to place precisely” and the second one is the relative quantity and ability to “deliver overwhelming lethality and massed-area effects to produce a resulting fires forces with overmatching fires capability at extended tactical and operational ranges” (Holthe, 2018).

Rocket artillery will be used on three main levels (Marek, 2022). The first level is tactical. At the tactical level, rocket artillery will perform tasks in the operational space of the brigade in the 30-40km range. At the operational level, the MRL will perform tasks limited to medium (70-150 km) and long (300-500 km) ranges. The strategic level will use the operational space of the army, and its role will be politically pre-determined.

MRL capabilities will be able to provide “the ability to perform coordinated precision strikes against both hard and soft targets and enable collaborative engagement of multiple targets simultaneously or sequentially to optimize the effectiveness of precision strikes” (Holthe, 2018). The key role of these systems will be in the ability of independent reaction and mobility, which should prevent enemy counter-fire. Also, one of the tasks of rocket artillery will be counter-fire. However, the main strategic logic of these systems lies in their ability to provide a capability to execute operational interdiction over long distances and an ability to suppress and destroy the command and control (C2) centres, GBAD capabilities, HVT, HFT etc. Russian SAM advantage in Kaliningrad as one of Russia's key A2/AD capabilities will be challenged by MRL capability as one of the priorities, and long-range MRL firepower will be applied to SEAD/DEAD with the tactic of overwhelming enemy air defence by saturation strike(s) in the area of responsibility/JOA (Mitchel, 2015). The ability to break Russian A2/AD capabilities remains one of the main strategic goals applied to the strategic reality. It is possible to suppose that the active restricted operating zones (ROZ) will be targeted with indirect fire on the medium range.

The saturation of the battlefield will be ensured by old types of missiles and supplemented by TTP on the tactical level of a brigade. Combination of brigade level with operational as well as strategic levels should create layered denial capability in a theatre.

Deterrence by denial is proactive - "from the start, seeking to make it physically harder for an opponent to attack by making the overall costs of continuing higher than the predicted" (Fryc 2016, 57). The implemented Polish approach to the strategy lies in the ability to conduct a set of measures from defensive to pre-emptive to ensure reaction times, which is essential for this kind of conventional approach to deterrence (Mazarr 2018; Mearsheimer 1983). However, the relative distances in the main areas of theatre - northeast and east on the line Brest-Warsaw have relative problems with the ability to build robust defence lines using natural barriers, and the rivers can actually favour the enemy in such scenarios. The main centre of gravity of Polish forces will be in the ability to develop such scenarios, which can restrict the freedom of enemy action and can provide some physical strength. From this point of view, it is possible to presume that the change, which programme HOMAR should bring, is the pre-emptive conception of layered enemy destruction in the form of Polish own A2/AD capability, which will potentially include warfare beyond direct fires and ability to project power (A2/AD bubble) on long distances including part of Belarus territory. Counterforce possibility remains an important part of Polish capabilities and will include the ability to detect and destroy SRBMs before launch, although this is a much more complex issue, including strengthening SAM capabilities and F-35 data network and JSM procurement and also JASSM and JASSM-ER missiles for F-16. It is worth mentioning that Poland signed an agreement with France (Airbus) for the procurement of two reconnaissance satellites and a receiving station.

### **IMPACTS ON THE REGION AND STRATEGIC STABILITY**

After implementing the HOMAR programme and pre-emptive capabilities, Russian room for manoeuvre and its margin would significantly decrease. Conventional deterrence by denial will be extended over Baltic countries and the western part of Belarus as well and can push Russian ability to power projection eastward and change the Polish strategic perception of Belarus. It may be claimed that it will break a relatively sharp contact line



and utilize the part of Belarus for its own buffer and strategic depth zone. It will change the posture of the alliance since the centre of gravity of power is going to the Eastern Flank led by Poland.

## **CONCLUSION AND RECOMMENDATIONS**

Polish acquisition of MRL systems in the comprehensive programme HOMAR has the potential to radically change the strategic posture of the alliance in the CEE region. The ability to prosecute deterrence by denial will be strengthened and will probably create limited strategic depth as well as push back the Russian A2/AD bubble in Kaliningrad and limit the Russian ability to project the power towards the CEE region.

- The ability to create its own A2/AD bubble, project military power by overwhelming, and precisely place a missile or artillery shell where it will maximize damage to the enemy is important. However, it must be combined with advanced domestic ISR and C2 capabilities. Camouflage can also greatly affect deployability.
- The bubble will have two primary objectives - overwhelming and precise but massive firepower + highly accurate firepower. To maintain the ability to deny access by pre-emptive strikes and layered destruction, robust logistical support and the ability to self-produce precision-guided missiles in sufficient volumes must be available.
- The mobility of the systems is important, but AD coverage must not be neglected. For the bubble to be realistically operational, GBAD systems must cover the area of penetration as well as the area of deployment.

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## ATTACHEMENTS

### Chunmoo rocket division (DMO) structure



## LIST OF ABBREVIATIONS

- A2/AD - Anti-Access Area Denial
- C2 - Command and Control
- DEAD - Destruction of Enemy Air Defense
- GBAD - Ground-Based Air Defense
- HIMARS - High Mobility Artillery Rocket System
- HVT - High Value Target
- JOA - Joint Operations Area
- MRL - Multiple Rocket Launcher
- ROZ - Restricted Operating Zone
- SAM - Surface-to-Air Missile
- SEAD - Suppression of Enemy Air Defense
- TTP - Tactics, Techniques, and Procedures

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