Received: 15. 10. 2018

Accepted: 19. 10. 2018

Published on-line: 15. 12. 2018

Available from: www.obranaastrategie.cz

doi: 10.3849/1802-7199.18.2018.02.071-088

MŮŽE POLSKO VYBUDOVAT KONVENČNÍ SCHOPNOSTI ODSTRAŠENÍ PROTI RUSKU?

CAN POLAND BUILD CONVENTIONAL DETERRENCE CAPABILITY AGAINST RUSSIA?

Rafał Kopec^a

Abstrakt

Ruská vojenská intervence na Ukrajinu oslabila paradigma nízké pravděpodobnosti ozbrojeného konfliktu v Evropě v krátkodobém a střednědobém období. V případě Polska je jediným nepřítelem Rusko, které disponuje kvantitativní a v některých případech i kvalitativní vojenskou převahou. Cílem předkládaného textu je analýza možností Polska vybudovat konvenční schopnosti zastrašování proti Rusku. Práce je zpracována z vojenské perspektivy, zároveň však se zhodnocením politického kontextu. Analýza je sestavena na principu střetu hlavních předpokladů o konceptu zastrašování v kontextu rusko-polských vojenských vztahů. Výstupem je hodnocení konkrétních opatření jako dostupných nástrojů pro Polsko.

Abstract

Russian military intervention in Ukraine has discredited the paradigm of low probability of armed conflict in Europe in the short and medium term. In Poland's case, the only adversary is Russia, enjoying the quantitative military advantage and, in certain cases, also the qualitative superiority. The aim of the paper is to analyse the possibilities to establish conventional deterrence capability against Russia. The study has been carried out from the military perspective, although the political context has been also portrayed. The analysis is designed as a confrontation of main assumptions of the deterrence concept with specific circumstance of Polish-Russian military relations. It leads to the evaluation of particular, available for Poland, measures as effective tools of deterrence.

Poděkování

Rád bych poděkoval Marzeně Lachowicz za jazykovou korekturu.

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Acknowledgements

I would like to thank Marzena Lachowicz for her language support.

Klíčová slova

Zastrašování; geopolitika; “Polish Tusks”; střely s plochou dráhou letu; výběr cíle.

Keywords

Deterrence; Geopolitics; Polish Tusks; Cruise Missiles; Target Selection.

INTRODUCTION - POLITICAL CONTEXT

The security architecture in Europe is undergoing dynamic changes. The Russian-Ukrainian conflict has undermined the paradigm assuming that an armed clash in the neighbourhood of Poland is unlikely or even impossible in the analysed time perspective. Some openly talk about a "*New Cold War*". Some commentators, politicians and militarists go even further and warn against a cold war changing into a hot one. For example, the head of NATO's Military Committee Petr Pavel described the Zapad 2017 exercise as "*serious preparation for a big war*".¹

These fears overlap with doubts about American involvement in Europe. Their source is, first of all, the openly transactional nature of American foreign and security policy conducted by the administration of President Donald Trump.² According to a report prepared for the security conference in Munich in 2018, America rejects what used to be its strength - "*the bipartisan long-term investment into a community of like-minded states*"³. Secondly, the position of the US as a force supporting the post-cold war order is increasingly being questioned. The possible loss of the US primacy in international policy and even the collapse of the entire international order is mentioned in the *Strategic Studies Institute* report of June 2017.⁴

Meanwhile, Russia is seeking to create the "post-West world order", as Russia's foreign minister Sergey Lavrov called it at a conference in Munich in 2018.⁵ From Russia's point of view, in the geopolitical game Poland is part of a larger whole, that is the aggressive West. The vision of the West and NATO, which threatens Russia's position as a global player that is capable of shaping the situation in many regions of the world, and which is coming dangerously closer not so much to the borders of Russia, but to the vital areas of the state, is not just a picture created for internal propaganda. This is the picture of the international situation perceived by Russia's leadership, which in a real, and not only propaganda way stimulates moves in the political and military fields.

WAR WITH RUSSIA - EVENTUALITY OR PHANTASMAGORIA?

For Poland, the vision of a possible armed conflict with Russia is - it must be emphasized - remote and very unlikely. Though it is unlikely it is not impossible, because in the security policy, any forecasting, especially in the medium- and long-term perspective, is fraught with the risk of error. From the Polish point of view these fears are the result

¹ NATO: Russia exercise resembles "preparation for a big war". In: *CBS News* [online] 18. 9. 2017. Available from: <https://tinyurl.com/y7d9llcs>

² HADAR, Leon. *The Limits of Trump's Transactional Foreign Policy*, In: *The National Interest* [online] 2. 1. 2017. Available from: <https://tinyurl.com/zksw3dl>

³ *Munich Security Report. To the Brink - and Back?* Munich Security Conference, 2018, p. 20.

⁴ FREIER, Nathan P. *At Our Own Peril: DoD Risk Assessment in a Post-Primacy World*. Carlisle: Strategic Studies Institute, U.S. Army War College, 2017, ISBN 1-58487-761-8.

⁵ Foreign Minister Sergey Lavrov's address and answers to questions at the 53rd Munich Security Conference. In: *The Ministry of Foreign Affairs of the Russian Federation* [online]. 10. 2. 2018 [cit. 2018-12-21]. Available from: <https://tinyurl.com/zfxegox>

of not only Russia's intervention in Ukraine⁶ and provocative actions in the Baltic Sea region⁷, but most of all dynamically implemented reforms of Russia's military potential in terms of its technical modernization and above all in terms of a thorough reconstruction of the system as a whole, towards its greater efficiency and flexibility. The significant element of these reforms is the sharp increase in the frequency of large-scale strategic exercises and short-notice snap drills, serving to bolster the readiness of Russian forces.⁸ These reforms have been implemented dynamically since 2008, but as early as in the 1990s, due to the scarcity of financial resources and the need to maintain the status of superpower, the following assumption was adopted and it has remained unchanged till today: nuclear strategic forces were the priority, followed by the modernization of selected operational systems, particularly missile force projection systems and defensive systems called Anti-Access/Area-Denial. Conventional combat measures with an emphasis on tactical level (land forces, front aviation, surface fleet) were at the bottom of the list of priorities and had to wait for the improvement of Russia's financial situation. This shows Russia's desire to ensure primarily security and the superpower status, and not to expand, which requires large conventional forces capable of conducting long, intense war campaigns outside the country.⁹

The analysis of the geopolitical situation, or even the basic analysis of the borders, indicates that Russia's military aggression against Poland is practically impossible until two issues are resolved in the way that Moscow wants. One of them is a significant reduction in the cohesion of Western security communities (primarily NATO, but also the European Union). In this context the weakening Polish position in the European Union due to the accusation of violating the rule of law principles should be pointed out, as well as the American push to break down European cohesion. For the USA under the presidency of Donald Trump Europe, and Germany in particular, is considered more like a rival than an ally. So, the controversial concept of the Three Seas Initiative, promoted by Poland and backed up by the US administration, takes on a new significance as a way to establish a competitive centre in Europe, contrary to the traditional Berlin-Paris power axis.¹⁰ The other issue is Russia gaining complete control over Belarus and preferably also over Ukraine. Attacking Poland only from Kaliningrad, even after controlling Lithuania, Latvia and Estonia, will be very difficult to carry out. Despite the tendency to devote special attention to Ukraine, Belarus, from military perspective, is the most important piece of the puzzle. Firstly, the distance from the Polish-Belarusian border to Warsaw is only nearly 200 kilometres. Secondly, the Bug river divides the area east of Warsaw into two

⁶ WASIUTA, Olga - Sergiusz, WASIUTA. *Wojna hybrydowa Rosji przeciwko Ukrainie*. Kraków: Wydawnictwo Arcana, 2017, ISBN: 978-83-653-5025-1.

⁷ MAZUR, Przemysław - Martyna, TARG. *Zmiany w strategii obronnej Szwecji w odpowiedzi na zagrożenie militarne ze strony Rosji. Wojny i Konflikty. Przeszłość - Teraźniejszość - Przyszłość*. 2017. No. 2, p. 66-69. ISSN 2543-6759.

⁸ WELT, Cory. *Russia: Background and U.S. Policy*. Washington: Congressional Research Service, 2017, p. 39-40. Available from: <https://tinyurl.com/y7jytcfg>

⁹ BĄCZYK, Norbert. *Rosja się zbroi - analiza trendów 2008-2017*. Nowa Technika Wojskowa. 2018. *Numer Specjalny*, No. 14, p. 7-9. ISSN 1230-1655.

¹⁰ KURECIC, Petar. The Three Seas Initiative: geographical determinants, geopolitical foundations, and prospective challenges. *Hrvatski Geografski Glasnik*. 2018, No. 80/1, p. 99-124, ISSN 1848-6401.

parts. The northern part, located north of Bug, including area next to the Kaliningrad Oblast, is very difficult to launch a massive strike of armored forces - there are number of bodies of water and wetlands. The southern part, between Bug and Wieprz rivers is, by contrary, easily accessible to large armored units and provides the most advantageous direction to make a full-scale advance on Poland.¹¹

The direction of the Polish policy towards Belarus is a controversial issue. Supporting for democratic opposition, which might seem morally justifiable, could appear counterproductive from geopolitical point of view. As in the case of too aggressive attempt to draw Belarus into UE sphere of influence, which could cause the uncontrolled collapse of the Lukashenka regime. Such developments in Belarus may lead to boosting Russian clout, which is presently significant, but not unlimited. Aleksander Lukashenka has been cleverly vacillated between Russia and the UE, assuming, probably correctly, that one or the other would try to overthrow him. It is in Polish interest to keep Belarus stable and as far from Russian influence as possible.¹²

Without meeting these conditions, it is difficult to imagine military aggression against Poland. A limited attack, for example in order to control Russian-speaking enclaves or cause chaos, may be justified in relation to the Baltic countries, but not Poland. Besides, an attack on Poland is not necessary to secure hypothetical aggression against the Baltic states.

Meeting these conditions, especially keeping the Western structures cohesive, might create a 'kó situation' (an expression from *Go game*, old Chinese/Japan board game) when anybody starting an offensive action will lose a war. On the other hand, a less favourable scenario should be considered. The pessimistic scenario assumes that a combination of political, economical and military factors (partially inspired by Moscow) will open a Russian 'window of opportunity'. It is possible to image an aggression that would aim at establishing a friendly government in Warsaw, which would require the control of at least a significant part of the territory of Poland.

Two questions arise from these conditions. One is about the credibility of allied aid. In this context, two issues must be emphasised:

- negative experience of 1939, when Poland did not receive the promised help from France and Great Britain in the face of aggression from Nazi Germany; this experience of loneliness is still an unhealed trauma, strongly shaping Polish strategic culture;
- fragility of relations with the USA, despite the openly pro-American attitude of the government of Law and Justice; it has become noticeable in the context of controversy over the Law on the Institute of National Remembrance and a rather harsh American response, questioning the future of the strategic partnership.¹³

The other question, ordering the content of this article, concerns the possibility of Poland building independent military capabilities, creating adequate deterrence potential.

¹¹ SKRZYPCZAK, Waldemar. Wzmocnienie potencjału bojowego Wojsk Lądowych (rozważania). *Nowa Technika Wojskowa*. 2018, No. 6, p. 12-13, ISSN 1230-1655.

¹² TALAGA, Andrzej. Więcej relizmu wobec Białorusi. In: *Rzeczpospolita* [online] 29. 3. 2017. Available from: <https://tinyurl.com/ybu3zobw>

¹³ AHMANN, Tim. U.S. disappointed at Polish president signing Holocaust bill: Tillerson. In: *Reuters* [online] 6. 2. 2018 [cit. 2018-12-21]. Dostępne z: <https://tinyurl.com/ya3bggf4>

DETERRENCE - THE ESSENCE OF THE CONCEPT

Deterrence is a type of behaviour manipulation. It is to influence the behaviour of another entity (in this case, to discourage it from unfriendly actions) by creating a specific state of mind of the opponent.¹⁴ This state of mind is caused by a fear of the consequences of a specific action. Deterrence is convincing the opponent that the cost and/or risk resulting from taking an action will outweigh the benefits that could result from the action.¹⁵ Therefore, for effective deterrence, it is necessary to limit profits and increase costs on the side of the opponent.¹⁶ Reaching this effect is conditioned by two elements - having military strength and the threat of its use if deterrence failed.¹⁷

The deterrence process can take two forms, according to the division introduced by Glenn H. Snyder.¹⁸ Deterrence by denial involves stopping the opponent from taking undesirable actions by convincing them that their goals would be impossible to achieve. Simply speaking, we deny the opponent the chance to win in a military confrontation. The other type of deterrence, deterrence by punishment, is based on convincing the opponent of the inevitability of incurring unacceptable losses (hence the "punishment") if undesirable actions are taken.¹⁹ This threat will be applicable regardless of whether the opponent's action is successful or not. In the extreme form, typical of nuclear deterrence, the very vision of war was to be a deterrent, regardless of its outcome.

Deterrence by denial presupposes limiting the potential profits of the opponent, and deterrence by punishment presupposes the increase in costs borne by the opponent. Deterrence can target either the opponent's military potential (counterforce deterrence) or a value that is precious for the leaders of a deterred country (counter value deterrence).²⁰ These are two strategies for targeting. The counterforce strategy is aimed at everything that determines the strength of the state, that is primarily the armed forces and their facilities, as well as the network of command and control and centres of political power. In counter value deterrence the territory, industrial and economic potential, or the stability of the international environment of the state, and even symbols of the prestige of the state can be the value. In nuclear deterrence, the value at which deterrence targeted was primarily the demographic potential of the opponent.

It must be openly admitted that deterring a nuclear state by a state with only conventional weapons is extremely difficult. The state's acquisition of a nuclear weapon

¹⁴ *Department of Defense Dictionary of Military and Associated Terms, Joint Publication 1-02*. Joint Chiefs of Staff, Washington DC, 1994, p. 8.

¹⁵ GEORGE, Aleksander L. - SMOKE, Richard. *Deterrence in American Foreign Policy: Theory and Practice*. New York: Columbia University Press, 1974, p. 11, ISBN 978-0231038386.

¹⁶ *Deterrence Operations Joint Operating Concept, Version 2.0*. Department of Defense. Washington DC, 2006, p. 26.

¹⁷ FREEDMAN, Lawrence. *Deterrence*. Cambridge: Polity Press, 2004, ISBN 978-0-7456-3113-7.

¹⁸ SNYDER, Glenn H. *Deterrence by Denial and Punishment*. Princeton: Woodrow Wilson School of Public and International Affairs, Center of International Studies, 1959.

¹⁹ BAYLIS, John. *Ambiguity and Deterrence: British Nuclear Strategy 1945-1964*. Oxford: Clarendon Press, 1995, p. 4, ISBN 978-0198280125.

²⁰ FETTER, Steve. Nuclear Strategy and Targeting Doctrine. FEIVESSN, Harold A. et al. (eds.). In: *The Nuclear Turning Point: A Blueprint for Deep Cuts and De-alerting of Nuclear Weapons*. Washington DC: The Brookings Institution, 1999, p. 47-59. ISBN 978-0815709534.

in a completely unprecedented way puts it up in the international system.²¹ Conventional deterrence also offers a much lower probability of obtaining a stable, permanent stalemate situation that would discourage both sides to war. Deterrence is a constant interaction, and the balance of power between antagonists is susceptible to rapid fluctuations. Having a nuclear weapon is a clear and obvious message. Conventional capabilities are devoid of this clarity. They can be interpreted differently and attention can be drawn to various factors, such as offensive and defensive measures or the ability to absorb the conventional attack (it puts bigger nation - in terms of a territory and/or a population size - in a privileged position). Moreover, relations regarding conventional potentials can change relatively quickly (to mention the change in military relations between Germany and the Allies between 1935 and 1938, or between NATO and Russia from 2008 and 2014).

In many cases, the balance of forces capable of acting at a given moment (present at the place of action or to be moved in a short period of time) will be more important than the general balance of strength between the sides of the competition.²² It determines the ability to conventional deterrence against an opponent who is not highly motivated and tends to avoid unnecessary risk, but would be happy to use the "window of opportunity"²³. Russia's relatively cautious moves during the activities in the Crimea and eastern Ukraine, run as far as they encounter strong resistance, are a perfect example of using the window of opportunity. This type of opponent will not attack unless they believe that there is a high probability of achieving a quick and easy victory (cheap victory strategy²⁴).

Conventional deterrence will usually be an example of deterrence by denial. This denial will focus on preventing the achievement of rapid military success and applying a policy of *faits accomplis*. Of course, this kind of deterrence will be more effective against an opponent motivated by the prospect of gaining a benefit in the event of an attack than against a rival fearing losses if they did not act. With these assumptions, it is possible to build the potential of conventional deterrence against a nuclear opponent. Wars are not necessarily total. However, a nuclear weapon remains an absolute weapon and in certain conditions (any except the threat to the existence of the state) it is a secondary factor.

In the author's opinion, deterring a nuclear state by a state having at its disposal only conventional weapons is extremely difficult. However, this aim is achievable, provided that the military component is supported by different components constituting state power (e.g. political, economical). We should not neglect the need to develop military capacities - the assumption that adverse military balance should direct the whole attention on non-military components is false.

²¹ MORGAN, Patrick M. *Deterrence: A Conceptual Analysis*. Beverly Hills: Sage Publications, 1983, p. 269-270. ISBN 978-0803919778.

²² RHODES, Edward. Conventional Deterrence. *Comparative Strategy*. 2000, Vol. 19, No. 3, p. 222. ISSN 0149-5933.

²³ LEBOW, Richard Ned. Windows of Opportunity: Do States Jump Through Them? *International Security*. 1984, Vol. 9, No. 1, p. 147-186. ISSN 0162-2889.

²⁴ MORGAN, ref. 17, p. 39-40

TUSKS - A POLISH IDEA FOR DETERRENCE

The concept of building Poland's potential of conventional deterrence appeared in June 2013. For the first time, the term "Polish tusks" was used by Prime Minister Donald Tusk during his visit to the 32nd Tactical Air Base.²⁵ It was an idea to build a military potential, which was supposed to increase the cost of potential aggression against Poland, not allowing an opponent to achieve a cheap victory. This project, therefore, referred to the theoretical assumptions of deterrence by punishment.

The first step in this respect, undertaken before a comprehensive concept was developed, was the formation of a coastal missile squadron within the Navy. It was primarily established to damage surface targets, but the system was also to be adopted to combat ground targets. The concept presented in 2013 evolved and in the years 2014-2015 it appeared in statements of politicians of the then ruling camp, mainly Tomasz Siemoniak, the deputy prime minister and minister of national defence. The "full option" was to consist of the following elements:

- Joint Air-to-Surface Standoff Missiles (JASSM) carried by F-16 aircraft,
- Naval Strike Missiles (NSM) that are anti-ship and land attack missiles launched from land launchers,
- tactical missiles launched from land launchers planned to be acquired as part of the Homar programme,
- cruise missiles launched from submarines planned to be acquired as part of the Orka programme,
- unmanned aerial vehicles with the transferability of weapons planned to be acquired within the Gryf and Zefir programmes,
- Special forces.

After the elections in 2015, the ruling *Law and Justice* (PiS - *Prawo i Sprawiedliwość*) party ceased using this name. Probably the reason for this was the reluctance to continue the programmes started by the previous government as according to the official message the former government "left Poland unarmed".²⁶ Thus, the formal continuation was inconvenient for political reasons. Perhaps the name of the Polish concept of conventional deterrence was also significant, being an amusing wordplay (tusk is the surname of the prime minister Donald Tusk). Nevertheless, some of the basic elements of the programme, regarding planned acquisition of tools (types of weapons), are continued.

The main assumption of the "Polish tusks" was to acquire the potential of fire impact over large distances. Missiles, especially cruise missiles, were to be the basic tool. The inclusion of unmanned aerial vehicles into the deterrent potential should be, however, treated less seriously. The most advanced unmanned strike systems, including the American Reaper, in the confrontation with an opponent possessing modern anti-

²⁵ KUCHARSKI, Bartłomiej. Polskie kły - plany, oczekiwania, możliwości, propozycje. *Nowa Technika Wojskowa*. 2015, No. 1, p. 14-20, ISSN 1230-1655.

²⁶ Macierewicz: Co takiego wam Polska zrobiła, że tak ją pozostawiliście bezbronną? In: *Dziennik* [online] 11. 5. 2016. Available from: <https://tinyurl.com/yd8zwjhx>

aircraft systems will be characterized by minimal survivability.²⁷ The Gryf and Zefir programmes are still included in the *Technical Modernization Programme*, but their purchase has been postponed.

The last element in the framework of the concept of "Polish tusks", i.e. special forces, also seems inadequate in the context of building the deterrence potential. In the rhetorical layer, this concept has been extended beyond common sense. Too many elements have been put into the bag labelled as "deterrence", which only diluted this concept. With a certain dose of good will, special forces that have the capacity to raid an enemy's distant facilities to destroy objects of strategic importance can be treated as part of conventional deterrence. However, Polish special forces do not have such possibilities, primarily due to the lack of appropriate means of transport.

FROM THE AIR, LAND...

Missiles are the core of the concept of conventional deterrence in Polish conditions. They can be launched from three environments - from the air, sea and land. All three elements have been addressed - the purchase of appropriate equipment has been done or is in progress. It should be noted that these proceedings are significantly delayed (the Homar programme and especially the Orka programme), and some of their assumptions (regarding the option of equipping submarines with cruise missiles) are still under discussion and may be redefined.

As for missiles launched from the air, in December 2014, a contract was signed for the purchase of 40 missiles Lockheed Martin AGM-158A JASSM and their integration with the F-16 aircraft used by the Polish Air Force. The first missiles were delivered to the base in Poznań-Krzesiny in January 2017.²⁸ The missiles have a range of 370 km and have a warhead weighing 450 kg. Therefore, they are able to reach targets not only in the enemy group but also fulfil the strategic goals attacking targets in a strategic depth. What is important, thanks to the large range it is possible to launch the missiles outside the range of the enemy's effective anti-aircraft defence. It is believed that it was the purchase of these missiles that caused Russia moved their airbase in Belarus from Baranavichy to an object located 200 km further from the Polish borders in Bobruisk.²⁹ This shows that simply owning this type of weapon can seriously complicate the enemy's actions.

In December 2016, a contract for the purchase of missiles version AGM-158B JASSM-ER with a range of about 1000 km was signed.³⁰ Poland is the first country outside the US that will receive this type of weapon. The US Department of State's approval covers 70 missiles, so that can be the maximum number of missiles contracted by Poland. It is

²⁷ ZENKO, Micah. *Reforming U.S. Drone Strike Policies*. New York: Council for Preventive Action, 2013, p. 7. ISBN 978-0-87609-544-7.

²⁸ Amerykańskie rakiety JASSM do F-16 już w Krzesinach. In: *Polskie Radio* [online]. 21. 1. 2017 [cit. 2018-12-21]. Available from: <https://tinyurl.com/y9fw2gej>

²⁹ AFEEK, Jarosław. Zdolność odstraszania a „polskie kły”. *Nowa Technika Wojskowa*. 2016, No. 1, p. 15. ISSN 1230-1655.

³⁰ MON: 940 mln zł na pociski JASSM-ER. Umowa „gwarantująca” dostawy podpisana. In: *Defence24.pl* [online]. 24. 12. 2016 [cit. 2018-12-21]. Available from: <https://tinyurl.com/y9z2ydyv>

a weapon that, having all the features of the AGM-158A version, thanks to a much larger range can be predestined to attack strategic goals.

As land potentials, the NSMs are primarily intended for the destruction of surface targets, but they can also be used against land-based targets. In total, the Sea Missile Unit will have 72 missiles. The head of the Naval Inspectorate in the General Command of the Armed Forces, Vice-Admiral Ryszard Demczuk in an interview for the magazine *Dziennik Zbrojny* stated that “‘detering’ by having mobile positions of the Coastal Missile Squadron on the coast in a crisis situation and in an emerging crisis will be a very effective tool in the enforcement of the maritime *raison d’etat*”.³¹ When the weapon was introduced to the armament of the Polish army, it was even said that they might possibly be able to destroy the Iskander missile launchers, which would be deployed in the Kaliningrad District.³² However, a relatively small range (officially over 200 km, in practice probably just a little above this limit) and a small warhead (125 kg) strongly limit the possibilities in this respect. In addition to these limitations, the problem is that the Iskander missile system is a highly mobile target, so a comprehensive kill-chain is needed - attack structure, which consists of the detection, identification, tracking and destruction of the target. Due to the mobility of the target, this must be done in real time. Therefore, the NSMs are a valuable tool to combat tactical and operational targets, but not strategic ones.

Another element of the Polish deterrence potential will be rocket launchers which are planned to be purchased within the Homar programme.³³ It is assumed that within the system missiles with a range of about 100 km (probably American MRLS with a range of approx. 70 km and Israeli Extra with a range of 150 km) and larger and heavier rockets with a range of about 300 km (American ATACMS, possibly Israeli Predator Hawk or Lora) will be available.

In July 2017, the idea of purchasing 160 launchers within the Homar programme emerged. It is assumed that 56 launchers for 3 rocket artillery squadrons will be purchased until 2022, then the next ones. These plans are part of the general plans to significantly strengthen Polish artillery, both on a tactical and operational scale. It is supposed to act as a tool of far-reaching influence on the enemy when the enemy has a strong anti-aircraft defence and other anti-access possibilities. Multiple rocket launchers have repeatedly proved their capabilities, also in relation to combating armoured and moving targets.³⁴ Acquiring this kind of weaponry would largely strengthen Polish military potential, but still, even due to its range, it is a weapon for use at tactical and operational levels, not strategic ones.

Potentially, it would be possible to purchase land-based missile systems with a larger range. In the United States, a ground launched Tomahawk version was developed. It was a BGM-109G Ground Launched Cruise Missile equipped with a nuclear warhead of

³¹ Wiceadmiral Ryszard Demczuk o znaczeniu Nadbrzeżnego Dywizjonu Rakietowego. In: *Dziennik Zbrojny* [online]. 20. 3. 2014 [cit. 2018-12-21]. Dostępne z: <https://tinyurl.com/y86c76nd>

³² KOZUBAL, Marek. Polska bardziej zbrojna, Uważam że, Available from: <https://tinyurl.com/ybev7zo2>

³³ BĄCZYK, Norbert. Program Homar - Dawid kontra Goliat. *Nowa Technika Wojskowa*. 2017, No. 6, p. 44-48. ISSN 1230-1655.

³⁴ WOLSKI, Jarosław. Artyleria w zwalczaniu pojazdów opancerzonych. *Nowa Technika Wojskowa*. 2016, No. 1, p. 37-49. ISSN 1230-1655.

the range of about 2,500 km. However, the missiles were withdrawn from weapons in 1991 under the INF Treaty (the Intermediate-Range Nuclear Forces Treaty on the total elimination of intermediate-range missiles). Currently, the USA do not produce or develop weapons of this class (for Poland, one could, of course, only consider a hypothetical variant with a conventional warhead). Also, the French MdCN/NCM cruise missile is not available in a ground-launched version. Western countries do not develop ballistic missiles of this type - there is a gap between tactical and strategic (intercontinental) missiles. Ballistic missiles with a range of 1000-3000 km are the domain of countries such as China, North Korea and Iran. It is difficult to imagine Poland purchasing advanced weapons from these sources.

The purchase of missiles with large spatial capabilities is complicated by the MTCR regime (Missile Technology Control Regime). It prohibits the export of missile technology and other carriers of combat loads with a range of over 300 km capable of carrying 500 kg heads. Poland and countries that could possibly provide appropriate technologies (the USA, France, Germany, Great Britain, South Korea) are MTCR members.

...AND THE SEA, OR “BOOMERS” WITHIN POLAND’S CAPABILITIES

The Polish Navy, the weakest military branch, has coped not only with financial shortage, but also with a lack of the operational doctrine and the concept of a role serving within the whole military system. However, the idea of increasing the Navy significance by entrusting it with the strategic tasks has been arising. The question remains whether the Navy can play a deterrent role in Polish circumstances.

Theoretically, the deterrent potential can include RBS15 Mk3 anti-ship missiles, with the possibility of combating land targets, launched from three small missile ships of the Orkan class. Interestingly, in the statements of politicians and militarists on the formation of “Polish tusks” this armament was omitted. In the case of RBS-15 Mk3 missiles, there are similar limitations as for NSMs. However, the primary purpose of the Orkan class ships and the missiles mounted on their decks is to combat enemy ships, and the possibility of attacking ground targets is their added value. It increases the flexibility of this armament in various tactical situations, but it is not the primary function. Therefore, these types of rockets cannot be included in the set of deterrence tools at the strategic level.

The weapon specialized in the projection of strength is to be the most controversial part of the whole system, that is cruise missiles launched from submarines. Their purchase is considered as part of the programme of purchasing submarines (called the Orka programme). 3 or 4 submarines are to be purchased, however the programme is significantly delayed.

In 2013 a suggestion was made that submarines should be equipped with long-range cruise missiles. The Undersecretary of State in the Ministry of National Defence Waldemar Skrzypczak informed about these plans during the Days of Industry conference.³⁵ These missiles were described as a deterrence weapon that would bring new capabilities not only to the Navy, but also to the entire Polish Armed Forces. It was to be the core of

³⁵ DURA, Maksymilian. *Pociski manewrujące na okrętach podwodnych. Nowa Technika Wojskowa*. 2013, No. 5, p. 94. ISSN 1230-1655.

the Polish strategic triad, consisting also of the land component (launchers purchased as part of the Homar programme) and the air component (JASSMs).

The concept of the triad clearly refers to the strategic nuclear triad, or the three types of nuclear weapon transfer means. The concept has been developed and implemented since the Cold War by the main nuclear powers. It consists of intercontinental ballistic missiles (ICBMs) fired from land-based launchers, strategic bombers and atomic submarines (called boomers) designed to launch SLBMs (Submarine-launched Ballistic Missile). Due to their advantages, especially the difficulty in detecting them, they constitute the most important part of the strategic triad. Some countries have based on them their nuclear potential completely (Great Britain) or almost completely (France, which still has a small air component). Of course, boomers are the key element of the triad in the United States and Russia, and recently they have been dynamically developed in China. Also India is starting to develop them. These states assume that one or more ships of this type are on combat patrol at any time, remaining ready to launch their missiles in the event the state has been attacked.

In a more modest version, this deterrence tool is also used in Israel. The state owns submarines that were produced in Germany with conventional propulsion designed to launch Rafael Popeye Turbo missiles with an estimated range of about 1500 km, equipped with nuclear warheads. Due to the specific nature of the Israeli nuclear programme (the so-called nuclear opacity - no official confirmation of nuclear possession by this country³⁶), all data about Israel are estimated.³⁷

Therefore, the concept that is taken into account in Poland copies the Israeli solution regarding ships (conventional propulsion, except that Polish ships are to be equipped with the Air Independent Propulsion module, which enables a few-week moving underwater at low speed - a very useful feature for long-term patrolling) and missile types (cruise missiles with a range of about a thousand-several hundred kilometres). The difference is one, though fundamental - it is obvious that Poland assumes using conventional warheads. Two types of missiles are taken into account. One of them is the French MdCN/NCM (Missile de Croisière Naval - Naval Cruise Missile), offered together with Scorpene submarines. The other option is the American Tomahawk missile in the currently produced version Block IV. However, the USA do not produce and offer submarines with conventional propulsion, so the missile would have to be integrated with carriers provided by another manufacturer. They can be either German ships type 212 or 214 or Swedish ships type A26. Theoretically, there is one more option: South Korean Hyunmoo-3 missiles and Jangboo-III ships, constructed as part of the Korean Attack Submarine 3 programme based on experience with earlier ships built on the basis of German technologies. The first ship, however, will be ready in 2025.

The concept of the Polish deterrence strategy based on cruise missiles launched from submarines seems very attractive. The range of all discussed rockets oscillates around 1500 km (usually manufacturers do not reveal accurate data), which gives a lot of freedom

³⁶ KOPEĆ, Rafał. Adekwatność strategii nuklearnej Izraela w warunkach transformacji bliskowschodniej architektury bezpieczeństwa. In: DZIEMIANKO, Zbigniew - Wiesław, STACH, (Ed.). *Bezpieczeństwo i prawa człowieka w badaniach młodych naukowców*. Poznań: Wydawnictwo Naukowe Wyższej Szkoły Handlu i Usług, 2014, p. 155-171. ISBN 978-83-61449-25-6.

³⁷ ŚWIECA, Jerzy. "Western" Israel in the system of oriental civilization. *Review of Nationalities*. 2016, Vol. 6, No. 1, p. 174-175. ISSN 2543-9391.

in the selection of targets, also inside Russia. Moreover, the main advantage of the carriers is the secretiveness of action. The air-independent propulsion allows the craft to stay submerged for a few weeks, making the ship's capabilities close to those of nuclear ships (although the latter have a definite advantage in the form of long-term walking under water at high speed). Owing to the large range of missiles, the ship does not have to stay in the Baltic during patrol, because it can damage targets from other waters around Europe.

However, this concept also has shortcomings that question its strategic assumptions. The following points should be pointed out.

- There are problems with obtaining full control over imported weapons. It is unofficially known that the US, agreeing to export Tomahawk missiles to Spain, reserved the right to co-decide on launching the missiles. At present Spain has resigned from equipping its S-80 submarines with the missiles, though the reason for this can be economic factors and technical problems faced by Spanish warships.
- Designating the role of a carrier of deterrence weapons to submarines will separate them from other tasks. In principle, this means that they lose their tactical skills. First of all, the risk of destroying or just unmasking them during tactical operations related to combating enemy ships will result in not assigning them to these tasks. Secondly, the main advantage of the submarine is the secretiveness of action, and the launch of cruise missiles exposes their location. The ships will thus make long-lasting patrols waiting for a signal to launch the missiles. It seems that this is not the optimal way to use this extremely costly and useful type of weapons in the Baltic conditions. Theoretically, a much better cost-effect relation would result from purchasing more missiles on mobile land launchers, which would also be difficult to detect by the enemy - with proper tactics. The cost-effectiveness would probably be greater.
- A submarine can take on a relatively small number of missiles. Depending on the type of launcher (missiles launched from standard torpedo tubes or from specialized vertical launchers), armament of one ship is up to a dozen missiles. Another barrier is also the high cost of this type of missiles. When in 2015 the Polish Ministry of National Defence asked the US government about the possibility of selling Tomahawk missiles, they inquired only about 24 missiles in total.³⁸ To put that into perspective, in the first phase of operations in Iraq in 2003 the Americans and the British launched over 700 Tomahawks.³⁹ It must be borne in mind that Iraq was a country of incomparably smaller potential than Russia (both in terms of the number of potential targets, and anti-aircraft defence facilities that could at least potentially shoot down some of incoming missiles), additionally devastated by sanctions for over a decade. Another example of the use of cruise missiles is the American attack on a Syrian air base in April 2017. 59 missiles were needed to temporarily naturalise one airbase in a state devastated by several years of civil war.⁴⁰

³⁸ NITKA, Andrzej. Pociski manewrujące dla Orki - czas decyzji?. *Nowa Technika Wojskowa*. 2015, No. 4, p. 106. ISSN 1230-1655.

³⁹ KOH, Swee Lean Collin. Emerging from Obscurity: Small Navies and Sea-Launched Land-Attack Cruise Missiles. *Maritime Affairs: Journal of the National Maritime Foundation of India*. 2016, Vol. 12, No. 1, p. 51. ISSN 0973-3159.

⁴⁰ ROSENFELD, Everett. Trump launched attack on Syria with 59 Tomahawk missiles. In: *CNBS* [online] 6. 4. 2017. Available from: <https://tinyurl.com/y7mxa9qp>

It is difficult not to ask what deterrent effect against Russia a dozen missiles with conventional warheads weighing around 450 kg will bring. It seems that the submarine section of the Polish triad will only be a clumsy imitation of the concept of nuclear deterrence implemented by the largest powers with boomers, and by Israel with the use of more modest but still sufficient resources. Meanwhile, the Polish concept would copy the Israeli option, but without its key component, that is nuclear warheads.

TARGET SELECTION - ESCALATE OR DE-ESCALATE?

Proponents of the concept of equipping submarines with cruise missiles argue that the appropriate deterrent effect can be obtained by proper selection of targets. The point is to make the attack as expensive for Russia as possible. Therefore, it must be directed to objects of strategic importance. For obvious reasons, Poland has no official concept of using this type of strategy, but one can guess that it could be, for example, objects related to the processing and storage of liquid fuels and gas, as well as the production and transmission of electricity.

The dilemma regarding the selection of targets does not only refer to the submarine rockets, but also to the JASSM-ER missiles already ordered for F-16 aircraft. They have similar properties in terms of spatial and destructive capabilities. Thus, the basic question is: *Should objects of strategic importance for Russia be attacked?* The modest number of weapons available in combination with conventional warheads will result in a limited destructive effect in the form of activity disruption in the strategic branches of the Russian economy. Politically, Poland's attack would be an expression of the desire to escalate. The missiles would be an up-escalator, a medium pushing the escalation to a higher level (according to the concept of Albert and Roberta Wohlstetter⁴¹).

The exchange of blows with Russia must end tragically for Poland, even if the opponent does not use nuclear weapons. Poland should strive not to enter the next, higher level of the escalation ladder, but rather to descend to the lower levels. Every action constituting a pretext for the escalation of military operations is extremely dangerous for a definitely militarily weaker party. Having no final (that is nuclear) resources, Poland cannot afford to respond in accordance with the risk escalation model. Instead, it can adopt the model of violence escalation, based on the longest possible control over the development of the situation, the gradation of the measures of armed violence and the preservation of the possibility of relatively quick and easy de-escalation.⁴² The model of risk escalation assumes the gradation of threats, but without the use of force, and the possibility of losing control over the development of the situation is to be an additional deterrent. The prospect of a war that no one will be able to prevent is to restrain the opponent's activity. However, for this model a state needs to have nuclear weapons.

It is also difficult to imagine the implementation of the "de-escalation by escalation" scenario with conventional weapons (especially considering the relatively small

⁴¹ WOHLSTETTER, Albert - Roberta, WOHLSTETTER. Controlling the Risks in Cuba. *Adelphi Papers*. 1965, Vol. 15, No. 17.

⁴² SAUER, Frank. *Atomic Anxiety. Deterrence, Taboo and the Non-Use of U.S. Nuclear Weapons*. Hampshire-New York: Palgrave Macmillan, 2015, p. 10-14. ISBN 978-1-349-55399-0.

destructive potential of the weapons that Poland plans to acquire). This concept occurs in the French nuclear doctrine in the form of the ultimate warning (*ultime avertissement*)⁴³. It is also thought to be adopted by Russia, although the concept of nuclear de-escalation does not appear in the official doctrine of that state.⁴⁴ It would be a kind of "warning shot", which is a signal of determination to defend their interests, and at the same time a warning against the possibility of moving the conflict to the next level of escalation, where its dynamics will be difficult to control.

Of course, the situation will change if NATO engages into a conflict unconditionally and on full scale. Therefore, possible strategic escalation actions should be left to NATO, because only the Alliance (that is, practically the USA) is capable of carrying out such activities on the required scale, as well as responding to development of the situation and further Russian activities, at a higher level of escalation. The attack on strategic objects carried out by Poland alone can therefore be considered only as a response to a similar attack from Russia, possibly in the case of a nuclear attack.

THE NEED OF ISTAR CAPABILITIES

The crucial condition of adequate target selection are appropriate ISTAR (Intelligence, Surveillance, Target Acquisition and Reconnaissance) capabilities. The need to have a system of recognition on a scale and with possibilities adequate to planned targets, including satellite recognition, cannot be overlooked.⁴⁵ There is a need for precise data not only about the location of targets (location in real time for mobile targets), but also about possible counter measures, both near targets and the entire flight route. This will make it possible to select the most convenient flight route, flight altitude, turning points, etc. Although Poland can get help from the allies in this respect, their readiness to unconditional cooperation on this issue may be questionable if the international situation gets worse. It is also necessary to develop appropriate decision-making procedures and communication systems (including communication system with a submerged submarine).

At present, reconnaissance missions into deep enemy territory can be accomplished only by F-16 aircraft with DB-110 electro-optical infrared reconnaissance pods. The Polish Navy is virtually "blind". The Sea Missile Unit equipped with NSM missiles lacks appropriate capabilities - TRS-15M radars on truck chassis restrict effective combat range to about 40 kilometres, due to radar horizon effect. That limitation does not allow to effectively use NMS missiles in anti-ship role, when the only external source of information about enemy vessels might be M28 Bryza aircrafts with ASR400 radars (slow propeller planes without self-protection systems, that is minimally survivable in case of using enemy countermeasures). The situation is similar in Polish Air Forces - reconnaissance measures have been left out when AGM-158 missiles were acquired. Without reconnaissance systems

⁴³ YOST, David S. Nuclear Weapons Issues in France, In: HOPKINS, John C. - WU, Weixing (eds.), *Strategic Views from the Second Tier. The Nuclear Weapons Policies of France, Britain, and China*, New Brunswick-London: Transaction Publishers, 1995, p. 26-27. ISBN 978-1560007906.

⁴⁴ OLIKER, Olga. *Russia's Nuclear Doctrine. What We Know, What We Don't, and What That Means*. Washington DC: Center for Strategic & International Studies, 2016. Available from: <https://tinyurl.com/y88ylhos>

⁴⁵ LIKOWSKI, Michał. Prawie polskie rozpoznanie satelitarne. *Raport - Wojsko Technika Obronność*. 2014, No. 5, p. 38-40. ISSN 1429-270X.

the huge potential of AGM-158 in engaging targets deep inside enemy territory cannot be used. At best, the Polish military will be fully reliant on allied sources on information, which means that Poland gives up building own sovereign deterrent potential and accepts the fact, that Polish missiles will become only “brick” in allied capability, with no possibility of independent usage.

The temporary solution is an agreement between Polish Ministry of Defence and *Agenzia Spaziale Italiana* on data acquisition from Italian satellites. The first step applies to radar data from Cosmo-SkyMed constellation, the second step is to be downloading optoelectronic data from Optsat-3000 satellite. Poland is establishing Defence User Guide System in Białobrzegi near Warsaw, which is expected to achieve full operational capability on 2020.⁴⁶ The satellite reconnaissance is a necessary condition for supporting deep missile strikes against the enemy with integrated air defence system, which limits the ability to conduct reconnaissance using manned or unmanned aircrafts. Admittedly, satellites do not ensure constant 24-hour surveillance, but due to the nature of the targets (stationary objects or targets with limited mobility) it is not an essential requirement. The need to observe only one limited area (east of Poland) allows to calculate the satellite trajectory in order to reduce revisit time (however, the best solution is to increase the number of satellites in constellation). The problem is the absence of national Polish satellite system and relying solely on data purchasing from a foreign country - this is a half measure. There are, however, plans to build independent satellite systems, but they are still at the early stage of development. The 2017 Polish Space Strategy calls for establishing a satellite infrastructure for security and defence purposes, but no steps have been taken to implement that recommendation.

CONCLUSIONS

Long-range cruise missiles are weapons of great importance and considerable capacity, but only at the operational level. The primary task for this type of weapon should be destroying this type of targets - airports, bases, weapons and fuel storage facilities, command posts, radiolocation stations, long-range and medium-range anti-aircraft sets, tactical and tactical-operational missile launchers. It is worth analysing against what targets the USA, the UK and more recently, Russia use cruise missiles. They are, first of all, a kind of political declaration (it is no coincidence that the USA used Tomahawks in Syria during the visit of the President of China⁴⁷). But such declarations are made by the superpower, and the target (not necessarily the addressee of the declaration) is a weak state that is deprived of the possibility of an adequate response. This way of acting cannot in any way be an inspiration for Poland. The other method is strictly tactical and operational. Cruise missiles are primarily used as a kind of battering ram that takes control over the opponent's anti-aircraft systems and "chops a path" for subsequent strikes carried out by the state's air force.

⁴⁶ HLADIJ, Andrzej. Final Agreement in the COSMO-SkyMed Programme. In: *Defence24.pl* [online] 17. 11. 2016, Available from: <https://tinyurl.com/ybyy2aq8>

⁴⁷ A dinner of steak and carrots, then Trump's cruise missiles struck Syria. In: *The Guardian*, [online] 7. 4. 2017. Available from: <https://tinyurl.com/n62z7nx>

The development of deterrence by punishment (assuming possible counterstroke that would cause unacceptable losses for a potential opponent) is a controversial idea in Polish conditions. Available tools of retaliation will not be able to trigger the desired effect in confrontation with a state like Russia. Attacking strategic targets can push an escalation spiral to a level where Poland will not have tools to respond adequately. Retaliation actions on a strategic scale, if they were to be conducted, should remain the domain of allies (primarily the USA).

Poland should focus on tactical and operational actions, also with the use of long-range power projection measures. However, these measures should be obtained taking into account the cost/effect relation (here submarine-launched cruise missiles are particularly controversial). One should be aware of their usefulness on the operational level, but not fetishizing them as a tool for retaliation on a strategic scale. They should constitute a fragment of a larger whole, which is adequately equipped armed forces functioning as an efficient system. In this context, some power projections should be obtained, but without megalomania and superpower aspirations.

In this regard, a broad view of the military modernization program is not very encouraging. Following problems should be mentioned: lack of comprehensive approach and long-term vision of modernization process⁴⁸, which results in accidental and often not most needed purchases (the bizarre case is building a submarine rescue ship, when the prospects of Polish submarine fleet is unclear), defective functioning of weapons acquisition system (e.g. unrealistic requirements, underestimation of the costs)⁴⁹, poor innovation and production abilities across domestic military industry, persistence on oversized military structures with relatively small combat component, negligence in training the military reserve (instead of this, development of controversial program of territorial defence).

Building a conventional deterrence potential against an opponent that is much stronger militarily and in addition is a nuclear state, although seemingly attractive, seem to be a fantasy and a phantasmagoria rather than a real alternative. This does not mean that Poland should not consistently build its own military potential. The efficiency of the army as a comprehensive system is of key importance. Armament superiority, though desirable and sensitive in some areas, is not always the most important. Striving to buy modern equipment one should avoid technical fundamentalism, and treat this equipment as part of a system, which contains the following elements: doctrine, organization, coordination of command, training (including its continuity), combat readiness, mobilization system, logistics. In short, everything that makes the armed forces an efficient system. This system will certainly be more effective in deterrence than certain "insular" capabilities to which excessive driving power is attributed.

⁴⁸ DMITRUK, Tomasz. W cieniu nieosiągniętych priorytetów - wykonanie budżetu MON w 2017 roku. *Nowa Technika Wojskowa*. 2018, No. 2, p. 6-21. ISSN 1230-1655.

⁴⁹ DUDA, Adam, DMITRUK, Tomasz, Problemy w systemie pozyskiwania sprzętu wojskowego. *Nowa Technika Wojskowa*. 2018, No. 6, p. 14-24. ISSN 1230-1655.