

EXPERT'S OPINION: POLAND NEEDS TO MODERNIZE ITS HELICOPTERS. ATTACK HELICOPTERS - A PRIORITY

The attack helicopters are the most important ones, in the light of the growing threat. It should not be allowed that the Polish Army has no capability to neutralize targets with the use of specialized helicopters - as we were told by Brig. general reserv. Dariusz Wroński, former commander of the Air-Mobile and Motorized Forces, President of the Implementation and Production Centre at the Air Force Institute of Technology (ITWL).

According to the statements made by the Polish Ministry of Defence, implementation of the Kruk attack helicopter programme is to make it possible for the Armed Forces to acquire 16 gunships before 2022 and another 16 examples later. Currently, the Polish Army has Mi-24 Hind helicopters at its disposal, however lacking relevant anti tank guided weaponry. In the current situation, should the attack helicopters be a priority for the Polish Army?

I would like to stress it, very clearly, that more than a year ago I have reported it, that in the light of the changes of the global security context, we should immediately tailor the priorities and prioritize the acquisition of new attack helicopters. The attack helicopters are the most important ones, in the light of the growing threat. It should not be allowed that the Polish Army has no capability to neutralize targets with the use of specialized helicopters. The multi-role support helicopters may be dealt with a bit later, as the aircraft we possess would be able to fill in the capability gap, should they be modernized.

And generally speaking, how can you define the Polish needs, within the scope of the military helicopters?

When it comes to the number, threats and our potential shall be taken into account. We have the Kaliningrad Oblast and Belarus located at our borders, Poland has its population of 38 million. The Benelux countries have several heavy transport helicopters, they also own the AH-64 gunships in major quantities. In many dimensions their helicopter units are much stronger than those of Poland. Couple or several examples of the helicopters may only fill in the well defined, specialized gaps. Poland needs much more than 16, 30 or 60 helicopters.

Obviously, the process of acquiring the ultimate quantity of the rotary-winged aircraft needs to be distributed across a longer timeline, due to the budgetary constraints. However, considering the need to provide security to everybody staying within the Polish territory, and the alliance commitments, I am inclined to state that the Army needs to have 270 modern helicopters at its disposal. This is a careful estimate, resulting from the assessment of the realistic operational needs. The way in which this could be achieved remains an open question. It would be required to carry out a wide negotiation

process, establish production or maintenance capabilities, not to mention the crew training programme. Thus I am postulating that the existing helicopter fleet should be modernized. This is to bridge the gap, before transitioning to a new type.

The Ministry of Defence declares that first, 14 multi-role helicopters would be acquired for the Special Forces and for the Navy. The assumption related to acquisition of a single platform multi-role helicopters has been officially left behind.

I am not involved in the preparation of the modernization plans developed by the Polish Ministry of Defence. I am trying to follow and analyse the ongoing processes, and as a President of the Air Force Institute of Technology Centre for Production and Implementation, I create proposals and present views that are beneficial for Poland. I am happy that some of those views are taken into account. I have spent 36 years working with helicopters. I may say that throughout the process of introduction, a certain logic needs to be applied, so that these helicopters are able to complete specific tasks. We know that different helicopters will be needed by the Navy, e.g. considering the level of saltiness, and different ones would be proper for operating over the land areas. Taking this assumption into account, we are able to see it clearly that at least two platforms would be required. If one helicopter is predisposed for every task, then it would have a beneficial effect on logistics and maintenance, but no such helicopters exist.

The helicopters for the Navy are, without any doubt, needed urgently. Helicopters for the Special Operations component would come in the second place. Poland has made a declaration to have a specific set of capabilities within that scope, also within the framework of the NATO alliance. Here we would need rotary-winged aircraft that would be able to carry out very difficult and specific missions. They would have a bit better abilities, performance, they should outperform the helicopters that would be used by the Land Forces solely for the purpose of transporting troops and armament to the given location, in a short period of time. Here, in my opinion, we could use a simpler design, as compared with the ones utilized by the Special Forces or by the Navy. Now we are talking about three platforms, even though all three may belong to the group of "medium" helicopters. Ultimately, Poland would also need to have heavy transport helicopters at its disposal, and these should, undoubtedly, be taken into account in long term plans.

Just recently, the Polish Ministry of Defence announced that Polish entities are involved in an effort, the goal of which would be to modernize the Mi-8 or Mi-17 helicopters with Ukraine. Could this process, and if yes, how, be influenced by the memorandum of understanding signed recently by the Defence Ministers of both countries, regarding the expansion of military cooperation?

We are happy that Defence Minister Antoni Macierewicz, and his Ukrainian counterpart, have signed a document which legitimises and provides credibility to the Polish industry, when it comes to negotiation and preparation of the Polish-Ukrainian projects. This paves the way we need to go through, and makes it possible to continue the talks and projects that had begun before. As an effect, an interest may be observed in joint replacement of the helicopter engines, or in modification of the rotary-winged aircraft. This would get us the better, enhanced performance, resulting from the higher power output of the engines. As a result, the operational capabilities would be expanded, range and service ceiling would also be better, same would apply to the inter-overhaul periods which would be lengthened. Moreover, unitary fuel consumption would be lower. The helicopters could also be capable of carrying out tasks within a much wider spectrum, in comparison with the current status.

What are the benefits of modernization, when it comes to the operational capabilities?

Here I mean, above all, the temperature range within which the helicopters may carry out their

missions. If we had helicopters with engines offered by the Ukrainian Motor Sich company at our disposal, they could, without any problems, be operated in Afghanistan or in Iraq. In tough environment, in temperatures of 40 or up to 50 degrees Celsius, or in temperatures that are very low. Solely the engine replacement, with engines of better performance, according to the cost-effect principle, would diminish the fuel consumption, while the next overhaul could take place after 5000 hours, not after 1500. It is very important to prolong the operational lifetime of the helicopter itself. These helicopters would also have better payload characteristics. Modernization will also extend their service period and will make it possible for the maintainers, ground crews and engineers tasked with maintaining of these helicopters to retain and refine their skills.

In what way the proposed programme may be embedded within the situation concerning the Polish helicopters?

The Air Force Institute of Technology and the WZL No. 1 facility came to a conclusion that they may start cooperation with the Ukrainian Motor Sich company. Poland still operates a significant quantity of Mil helicopters, the structures of which may be operated for at least 10 to 15 years, or even 20 years in some cases. It is required though to replace some components in case of the Mi-8, Mi-17 or Mi-24 helicopters, not only in order to prolong their operational lifetime, but also to expand their combat abilities. Now, when the single-platform support helicopter programme has been suspended, no modernization of the older helicopters could lead to loss of operational capabilities, excluding the minor quantity of helicopters which are to be acquired to meet the urgent operational requirements.

Poland has made specific commitments in front of NATO or the EU, also when it comes to the number of helicopters ready for certain operations. We have decided to make a step forward and fill in the gap by modifying the most important elements of the helicopters, so that they are able to carry out the allied missions and fulfil the commitments for 8 to 10 years to come. Regardless of that, without any doubts, the ability to operate to the benefit of Poland comes first, here I mean everything that serves a purpose of defending the motherland. And this is the basic foundation for the whole thought process concerning the utilization of the helicopters already owned. Not only for the purpose of operational use, but also in order to continue training activities and maintain the habits of the pilots.

However, here I am making a reference not only to the pilots, but also to the logistics experts and air traffic controllers. 30-40 persons work for a single pilot, in order to make it possible for the helicopter to get airborne and fulfil its tasks. Withdrawal of the helicopters would lead to loss of skills and qualification, the recovery of which will be very costly and time consuming. In other words, the full operational capability would not be attained at the moment of acquiring the new helicopters, but much later, and at a significant cost, also related to the organizational issues. Until that moment, the helicopters could not carry out wide operations, should such need arise. The habits, in aviation, are being developed over a period of 10, 15 or even 20 years. They also bear a relevance for safety.

Which helicopters, out of the Polish fleet, could be modernized?

I am thinking of the whole fleet, starting with Mi-2, through W-3 Sokół, finishing with Mi-8, Mi-17 and Mi-24. Mi-14 helicopters could also undergo a modernization process. Considering the geopolitical context and the economy, we must reach out for the accessible solutions. We need a high number of helicopters, thus costs should also be taken into the equation. Retrofitting the engines and upgrades would get us capabilities for around 10 years, it would also make it possible to maintain continuity of training for the pilots and the ground crews. It is going to be a peculiar bridge between the nothingness, which is faced by the Polish helicopter aviation should no large scale steps be taken, and modern and new technology, the acquisition of which would happen in a longer term. As I have said, even after the first deliveries of the new helicopters, obtaining the full operational capability could take even 10 years. Without modernization we would lose our capabilities totally. In a situation of a

threat for Poland, the effects may be serious and unforgivable.

You have said that attack helicopters and acquisition of such aircraft should be a priority for Poland. Considering this, should the Mi-24 helicopters, that are to be urgently replaced, also be modernized?

The programme related to attack helicopters of a new type must be urgently pursued. Regardless of that, one should take into consideration the restoration of the combat abilities remaining at disposal of the Mi-24 helicopters. They have some specific features that separate them from attack helicopters developed by other manufacturers. Yes, it is an urgent need to acquire new ATGMs and engines for the Mi-24. This would expand their abilities, the first examples of such helicopters, with modified engines, are already being operated in Ukraine, with 1000 HP power increase. Their flight performance and permissible payload are much better. I would also like to note that addition of a new ATGM or modification of the targeting systems would increase the weight of the helicopter, thus the kinematic system shall also be tailored and modified. As an effect we would get a helicopter which would provide us with safety. It is worth to allocate a certain sum of money for that purpose, coming from the budget.

Thank you for the conversation.