## Poland Procures Korean MBTs, Aircraft, and Howitzers



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Photo. Polish MoD/Twitter

Mariusz Błaszczak, Deputy PM and head of the Polish MoD, has signed framework agreements on the procurement of military equipment from South Korea. The procurement plans include FA-50 light fighters, K2 MBTs, and K9 self-propelled howitzers. Both MBTs, as well as the howitzers, are expected to be Polonized.

The main manufacturers and parties to the agreements are, correspondingly:

- Hyundai Rotem K2/K2PL main battle tank
- Hanwha Defense Kg/KgPL howitzer
- KAI (Korea Aerospace Industries): FA-50 light fighter (developed jointly with Lockheed Martin)

Hanwha Defense is the best known in Poland, out the three entities, delivering the K9 platform license manufactured at HSW and combat-proven in Ukraine. The first lot of 48 K9A1 howitzers would replace the Krab sphs handed off to Kyiv, as the Polish Ministry of Defence declares. Then, more than 600 howitzers would be procured, with the manufacturing expected to take place in Poland.

Błaszczak: Poland is learning lessons from the attack on Ukraine.

The Polish soldiers need to use modern weapons, and weapons as such have just been ordered; according to the just signed agreements concerning the South Korean armament, Poland would, by the end of this year, receive the first deliveries of main battle tanks and gunhowitzers, and aircraft - next year. (...) This reinforcement is incredibly important, considering the situation that we are dealing with beyond our eastern border", said Błaszczak, after he signed the documents. "We have no time, we cannot wait, we need to arm the Polish military", Minister Błaszczak stated.

Błaszczak stressed that Poland is learning lessons from the attack on Ukraine. "We see that armour and artillery have a huge relevance on today's battlefield. Hence the decision on reinforcement of this branch of the Armed Forces", he added. The Minister made an assessment, suggesting that the Korean equipment is of top quality.

"The framework agreements signed today constitute just the first stage of our cooperation. We are convinced that this cooperation is good for both our states, that this cooperation would reinforce the Polish Armed Forces, and that it is an opportunity for the Polish and Korean defence industries", Błaszczak declared.

He noted that the K9 howitzer design is similar to the Polish Krab systems. Błaszczak stressed that Poland would order as many of these as possible. "But our needs are much greater than the HSW's manufacturing capacity", Błaszczak added, indicating that there is a necessity to

order such equipment in Korea.

Mariusz Błaszczak stated that the cooperation with South Korea has a strategic profile. "This is not a gap-filling effort, filling the gaps in our Armed Forces. This is a strategic approach. Both our nations are well aware of the threats tied to the aggressive Russian policy. Both our nations are aware of the fact, that our armed forces need to be equipped with modern equipment", he said.

Błaszczak announced that the first K9 howitzers would be received by the Polish Armed Forces in 2022, and during the upcoming year, the manufacturing of that platform would be taking place in Poland, also saying that the whole undertaking is a major opportunity for the Polish defence industry. "In the long run we want to make use of the best experiences associated with the Krab, and the best experiences associated with the K9, to find a common solution in a few years", he said.

Meanwhile, the first FA-50 jets would be received in 2023, Błaszczak declared. "These aircraft, first, would make it possible to decommission the Post Soviet aircraft (MiG-29). Secondly, they would make it possible to intensify the training of the Polish pilots. Thirdly, these are combat trainers that would be available for use in a myriad of missions that we are engaged in, as solidary NATO member states", Błaszczak said.

He noted that there is an 80% commonality between FA-50 and the F-16, and they have been designed in collaboration between South Korea, and the United States, by Lockheed Martin.

Deputy PM also mentioned the necessity to withdraw the MiG-29s. "I do not allow for circumstances in which the Polish pilots risk their lives, using aircraft that are dangerous to them", stated Błaszczak, adding that the last incident involving a Fulcrum took place on Tuesday. He stated that the Fulcrum's combat value is poor and that Poland does not have a stockpile of spares for the type at hand.

"We do not agree to import spares underground, from Russia, for these aircraft. This is out of the question. As these aircraft are to be decommissioned, they would be replaced by the FA-50", he added.

## KAI President: We are launching a strategic cooperation

Hyunho Ahn, President of Korea Aerospace Industries, expressed his satisfaction with the fact that the MoD has selected the FA-50 as the next combat aircraft type for the Polish Air Force, also adding that this is the largest single export sale for KAI (48 aircraft). Poland would become the first European user of the FA-50. Ahn added that the agreement should not be perceived as a single-time short-term contract, as it establishes a strategic partnership between the customer and the supplier. Ahn said that he perceives the contract as the inception of a strategic partnership between KAI, and the South Korean and Polish governments. He added that KAI may make contributions to the Polish Air Force's capabilities, and the development of the Polish aerospace industry.

The President at KAI suggested that Poland could become an MRO hub that could be later on used by the European FA-50 user group. He added that establishing a servicing facility in Poland would also contribute to more efficient lifecycle management of the system KAI is offering.

He also stressed that ROKAF's fleet availability levels exceed 90%, and KAI is getting ready to introduce a technical support system in Poland equivalent to the one used in Korea.

Ahn said that it is also possible to create an international aviation training center in Poland, as other countries in the region are also in high demand for pilot training, while the training costs remain high.

He declared KAI's readiness to start manufacturing FA-50 components in Poland, saying that this would facilitate lifecycle management for the FA-50 fleet in Poland, and also create an

impulse for the development of the Polish aerospace industry. Ahn hoped that 1,000 FA-50s could be exported over the upcoming decade, indicating that USAF and US Navy could potentially order 500 airframes. He expressed his belief that the agreement signed with Poland plays a major role in this area.

Ahn also said that KAI is currently discussing the sale of 100 to 200 FA-50 to neighbouring European nations. Should this become true, this would become a major business opportunity for the Polish MRO facility, as other customers would also require technical support provided by the Polish hub, also thanks to its geographical location. He announced that the company is planning to open a branch in Warsaw, that would become a base for undertaking further activities in the European markets.

Ahn stated that KAI, the majority of shares of which are owned by the Korean government, has the relevant know-how required to design, manufacture, and integrate air platforms, pointing to the fact that KAI has also developed the KF-21 - gen-4.5 fighter aircraft, the maiden flight of which took place a few days ago. KAI hopes to upgrade this design so that it matches 5th or even 6th generation standards. Ahn said that the KF-21 utilizes solely proprietary technologies that he hopes KAI could use to further develop FA-50.

He noted that from the very start of the project aimed at the development of the T-50 trainer, and FA-50 light fighter, the aircraft was being developed as an AJT/Combat platform, and from the very start, it was expected the platform would be supersonic. Ahn added that FA-50 is very effective, yet affordable, making it possible to easily transition to the F-16 and the F-35. He said that more than 200 T-50/FA-50 aircraft are operated today, including the fleet in South Korea. He also added that the FA-50 could carry air-to-air, and air-to-ground missiles, noting that its combat capacities have been confirmed in Filipino and Indonesian air forces, and saying that this is the reason that this would also translate into a contribution to the reinforcement of combat capabilities available to the Polish Air Force.

The aircraft shares numerous solutions with the F-16 - especially in the area of maintenance and weapons. The pilots and the ground crews would not find it challenging to get used to this system. FA-50 and F-16 are similar, Ahn said.

He added that the radar is one of the key features of any combat aircraft. Ahn said that even though the FA-50 features a conventional radar, AESA radar for the platform is under development now. FA-50 is also a low-cost platform, compared to other aircraft in this category - he assured.

He noted that cooperation with Lockheed Martin that led to the development of the T-50/FA-50 makes it possible to diminish the cost of spares and consumables, thus translating into the diminished cost of the FA-50 system as a whole. This also means that integration of American armament is also made easier. Apart from a common supply chain, T-50 also shares solutions with the F-35 or F-16, including MFDs, or fly-by-wire systems.

Ahn said that KAI is willing to establish a long-term partnership with the customers and that the company is going to engage in talks with the government, and the businesses as well. Not only is KAI willing to finalize the contract concerning 48 FA-50s, as the orders are on the rise, but plans are also being made, and the company is exploring options within the scope of establishing manufacturing potential for the jet in Poland, Ahn assured.

He admitted that the details on the location where the facility would be established remain to be discussed. The process would begin with the manufacturing of spares in Poland. As the influx of orders would grow, the collaboration would be extended.

The manufacturing of spares has been defined as relevant, but KAI also hopes to intensify the cooperation, also extending it to advanced involvement in the aircraft manufacturing process. KAI believes that an opportunity would present itself to discuss space and urban aerial mobility as well.

Płatek: We would rapidly replace the legacy, post-Soviet platforms

"Availability was the key factor that was decisive for the selection of the FA-50 in its FA-50PL variant, and the fact that these aircraft can rapidly replace the legacy post-Soviet technology - the Su-22 and the MiG-29", Płatek said. He added that right from the very start the Korean aircraft would offer capabilities exceeding those of the Su-22, while in the final configuration they would be fitted with AESA radar and the latest AIM-9X Sidewinder AAMs, and AIM-120 AMRAAM in a longer run. This would position them above the MiG-29 capability-wise, thus the FA-50 would become a full complement to the F-16s.

The spokesman for the Armament Agency said that the Air Force is a part of a broader system, also including artillery, air defence assets, and numerous other combat systems, also naval ones.

In this system, as Płatek said, the FA-50 would complement the F-16s, and the F-35 ordered by Poland, initially dealing with CAS, while air superiority would be dealt with by the F-16s, while the F-35 would be tasked with reconnaissance and designation of priority targets.

As he added, one of the criteria for selection of the Korean jet stemmed from the easy training process. "According to information received by the manufacturer from the ROKAF, and other users, conversion training for this type is very brief, and type adaptation for an F-16 pilot requires 9 hours of flight over two-weeks long training course", he said, also stressing that the FA-50 does not need to carry all weapons that are used by the heavier platforms.

"No necessity exists to integrate all effectors, for instance, it seems purposeless to integrate the JASSM-ER on the FA-50, as these are carried by the F-16, and would also be integrated on the F-35", Płatek said. He added that as the FA-50 would be fitted with the Sniper targeting pod, it would be capable of employing the latest RF- and laser-guided missiles.

The procurement processes are expected to have a rapid tempo of deliveries, along with a

significant technology transfer to Poland. The tempo of deliveries is also expected to be high, as the procured equipment, at least to some extent, would be used to complement the inventory gaps that emerged after some of the military equipment has been transferred to Ukraine, in the process of providing military aid to that nation.

All contracts are to be staged. When it comes to the K2 MBTs, 180 would be acquired in the first phase, and the deliveries would begin this year. During phase two, more than 800 K2PL manufactured domestically could be purchased. "The changes in configuration expected for the K2PL would include reinforced armour, the capacity to use US-made programmable rounds, retrofitting a 360 Degrees Observation System, an active protection system, or a Polish .50-cal. machine gun", said Mariusz Błaszczak, in an interview for Defence24.pl.

One should note that three agreements already signed with the armoured component in mind (250 M1A2 SEPv3 Abrams MBTs ordered in April, 116 M1A1SA Abrams MBTs expected to be upgraded to the M1A2 SEPv3 standard, and 180 K2 MBTs) would result in a total replacement of all T-72 and PT-91 MBTs - as 546 MBTs would be delivered in total. 318 T-72s and 232 PT-91s were to be available. In the former case, the number takes into account the upgrade plans devised for the T-72. Even though the Polish Ministry of Defence refrains from commenting on the military aid provided to Ukraine, we know that more than 200 T-72 MBTs, as well as some PT-91 MBTs, have already been transferred to the Ukrainian military. More could be transferred in the future, plausibly. The newly manufactured K2PL platforms would become a part of new structures then.

Apart from MBTs and howitzers, 48 FA-50 light fighters would be procured, 12 of which are expected to be delivered in 2023. The FA-50PL variant would feature an AESA radar.

According to the Polish Ministry of Defence, all contracts are to involve a significant transfer of technologies. The main battle tanks and the howitzers are to be ultimately manufactured and developed in Poland, while a maintenance center would be established for the FA-50.