



SSB President Prof. DEMİR: “The Transfer of Defense Technologies to the Healthcare Sector has once Again Demonstrated the Level of Our Technological Skill.”

Moving forward by taking the pulse of the defense sector, the SSBs focuses efforts to ensure the ecosystem is kept alive and to prepare Turkish companies for export market opportunities in the future.

President of Defense Industries Prof. Dr. İsmail DEMİR answered questions from Turkey's leading defense magazines during a live interview broadcast via a domestic video conferencing system on May 7th. DEMİR answered a variety of questions from the Managing Editor of Defence Turkey Magazine Cem AKALIN, Publisher & Executive Editor of MSI Turkish Defence Review Ümit BAYRAKTAR and Editor-in-Chief of C4 Defense Özgür EKŞİ as well as members of the public. During the broadcast, DEMİR made important statements about the plans for the post-COVID-19 period and the future targets of the Turkish defense sector and provided the current status of the defense & aviation projects.

In the first part of the 30-minute interview, topics various were discussed;

how Defense Industry companies were affected by the COVID-19 outbreak, how companies adapted to the process, the problems faced by companies during the manufacturing process, cash flow difficulties and company expectations. During the second half the President of Defense Industries answered questions about the development, production, and delivery processes of existing projects.

Underlining that critical projects are continuing thanks to the measures taken against the COVID-19 outbreak and that they are doing their best to ensure all deliveries are made on time, Prof. Dr. DEMİR shared his

opinions on which markets the sector will tend to after the COVID-19 period. “We should be dealing with every market where there is potential. There will be no difference in this regard before or after COVID-19. Turkey's humanitarian aid to foreign countries and the measures taken in the field of health changed our perception abroad. We expect this will have positive effects. The transfer of defense technologies to the healthcare sector has once again demonstrated the level of our technological development. We will make use of this recent development in changing the previously d i s a d v a n t a g e o u s

perception of the Turkish defense industry. When we talk about the defense and aerospace sector, the civil aviation sector has been profoundly affected by this epidemic, and it seems that this will continue. This may affect our manufacturing companies in civil aviation. I believe that the companies that can recover the fastest are the ones that will come to lead the global market. On the contrary, we do not anticipate such a devastating effect on the defense sector. The experiences gained during the pandemic will result in a broader perception of the defense sector. We are talking about exporting products and solutions to



countries as a package, including elements such as public security, cybersecurity, and vehicle tracking systems.”

Stating that there have been significant changes in the working order of several companies in the defense sector as part of the measures taken against the COVID-19 pandemic, Prof. Dr. DEMİR gave information about the work carried out regarding the problems that may occur in production processes and the financial situations of companies. “We plan to provide psychological relief. We are working on a model in which the situation of each company will be addressed separately, and the necessary steps to be taken will be determined accordingly. For example, we have obtained a special work permit in line with the demands of our companies so that the curfew does not disrupt their activities. We are very responsive to the issue of cash flow. As you know, we have numerous projects underway. Our main priority is to ensure that no one loses their job. One of the main tasks of the SSB is to support the defense sector to ensure the sustainability of the ecosystem. We are taking the necessary measures in this regard, and we want our companies to get in contact with us. We want to ensure their sustainability.” Stressing that businesses in various sectors have come to a halt due to the COVID-19 pandemic, DEMİR emphasized that the R&D and production activities in the defense and aerospace sector have continued without interruption. “Our deliveries are continuing.

We have supplied various platforms such as KAPLAN ATV, KARGU-2, Utility Helicopter, KIRAC, and the HAVELSAN Submarine Command and Control System. UAV production is also continuing, and we have signed a subcontractor agreement for the TF-X National Combat Aircraft. There have been some minor disruptions, but they have originated abroad. We are keeping the impact to a minimum, and we place utmost importance in avoiding disruptions in our strategic projects.”

Prof. DEMİR: “We will Need Significantly More Resources, Especially for Indigenous Projects Such as the Main Battle tank and Aircraft Engine as well as the 5th Generation Jet Fighter.”

Referring to the expectations of the defense industry for 2020, Prof. Dr. DEMİR stated that efforts are underway to increase revenues in the Defense Industry Support Fund, considering the financial value of the ongoing projects. “There have been efforts to increase the fund because the number of projects continues to increase, requiring more resources. As the number of projects further increases in the future, we will need significantly more resources, especially for indigenous projects such as the tank and aircraft engine as well as the 5th generation jet fighter. This issue is on the agenda of the Defense Industry Executive Committee (SSİK).”

Underlining that the T129 ATAK projects for Pakistan

and the Philippines and the ALTAY Main Battle Tank project cannot be finalized due to the embargoes, DEMİR stated that these issues are the main reasons for the emphasis on “National and Domestic” concepts. “In the current situation, embargo is a word that is not spoken of, but rather, it is applied. This is the reason for our emphasis on national and indigenous concepts. We have been predicting this for a long time. We must develop an independent defense sector, and we are cooperating in joint projects in which technology is being transferred, but when Turkey applies its national policies, we encounter obstacles. The steps taken by Turkey to protect its national interests are responded to with strange attitudes of friendly and allied countries. However, Turkey relies on its people, and we rely on our engineers. We have already started our studies to overcome these problems. We have our plan B and C. We continue our dialogue with those countries, but the obstructive attitude damages all those involved. We will continue our export activities. As you know, we are not a country that has designed many aircraft in the past. We are designing a fifth-generation aircraft as our first endeavor, and this will take some time.”

Sharing information about ongoing naval projects, DEMİR stated that it is time to turn to autonomous systems in naval platforms. “Our national submarine project is continuing. Today, we have a better understanding of the importance of Blue

Homeland. Construction activities are continuing at the shipyards of both the Turkish Naval Forces and in the private sector. The systems to be installed aboard the vessels are also extremely important, and in this area, we will break our dependency on foreign systems such as engines. We launched the submarine construction project with the Germans, and we will continue in this way if the foreign countries continue; however, if we encounter reluctance, we will continue the project on our own. We emphasize that both parties should always be constructive in relationships and projects. While the companies with which we are engaged in joint projects are willing to do business with us, their governments’ decisions and obstacles prevent them from doing so. We have ongoing work and competitions for unmanned surface and submarine systems, and we believe the time has come for autonomous naval systems. We direct our young people to conduct research not only on aerial platforms but also on land and naval platforms as well.”

Regarding the changes that may be experienced regarding the role of our country in the international arena, İsmail DEMİR mentioned the new developments that may occur in terms of international cooperation in the coming period. “It is possible that we will reap the first fruits of our activities and support in the F-35 project in the future. Turkey’s performance, as well as its



HİSAR-O - Medium Altitude Air Defense Systems

accurate execution of the work, will contribute to this. Regarding international relations, we are collaborating with other companies from which we have received design and engineering support. We are now entering a period in which we will witness the support of the parties to each other. We have a model in which all activities will benefit from a win-win relationship.” Underlining that Turkish defense sector companies have undertaken significant work packages under the F-35 project, DEMİR shared information about how Turkish defense and aerospace companies will be affected by the removal of Turkey from the F-35 program and the precautionary plans the SSB has put into place to reduce these effects. “In the F-35 project, the date planned to stop production was March 2020, but that has not been implemented, and our companies are continuing their work. These dates will be reconsidered. As can be

seen, the situation does not have an easy solution. We are a loyal partner of the F-35 project, and the contribution of Turkish companies can clearly be seen. Thus, we do not believe the existing approach to Turkey’s departure from the program will continue. We are keeping with production, and we will not break our relationship.”

Prof. DEMİR:
“Regarding HİSAR-A and HİSAR-O, the Need for These Systems has Become All too Apparent During Recent Operations, and We Have Seen that the Need for A Medium-Altitude System is More Urgent.”

Speaking about the current status of Turkey’s ongoing projects, DEMİR stressed that Turkish companies are undertaking the maintenance and sustainment of the S-400 system. “Our main target for the TF-X project is to utilize Turkey’s capabilities to the maximum extent possible.

We remain in contact with all partners, and especially the major defense companies and TÜBİTAK (The Scientific and Technological Research Council of Turkey). The utilization of foreign subsystems, even only in the transition process, would obstruct us in the future. We will not rely on any foreign systems in the future, as no matter how binding the agreement, there can be blockages. We have had our fingers burnt before in similar situations. Making every system indigenous is a costly process in the global system. In the first phase, we will use an off-the-shelf engine, but the final engine will be indigenous. The HÜRJET project remains on the agenda, and work continues on the prototype. Our negotiations with another country regarding ALTAY MBT are ongoing, and we can say that it is only a matter of time until we sign an agreement. For the engine, we have a plan B and even a plan C. We are still working on this. On the other hand, the decision as to whether we go with an electric engine or a hybrid

engine is still on the table. Regarding HİSAR-A and HİSAR-O, the need for these systems has become all too apparent during recent operations, and we have seen that the need for a medium-altitude system is more urgent. HİSAR-O has become operational in the field with certain elements, but there is still work to be completed. Our work on torpedoes is continuing. We expect the serial production of ATMACA to begin soon. The studies on land vehicles are also continuing, and the F-16 AESA radar project is also moving forward. The structural modernization work on the aircraft will be carried out by Turkish Aerospace. There has been no request to extend the lifecycle of the F-4 Aircrafts, but studies are also underway to look at the potential. The modernization of C-130s is continuing. We have a Jet UAV project and various UAV studies of different sizes. There are also several different UAV projects on our table, such as mini and micro UAVs, swarm UAVs, and ship-based UAVs. We are also working on future air combat concepts in which different UAVs undertake different tasks while conducting Electronic Warfare. Turkish companies will definitely be responsible for the maintenance and sustainment of the S-400 system. Training courses are continuing to a limited extent. Deliveries of the system were completed last year. Although the supply agreement includes items such as training, maintenance, and sustainment, Russian personnel will not be able to access the S-400 batteries

as they wish. This is our red line. Every part of the system or every work that involves the system will be under the responsibility of Turkey."

Indicating that the infrastructure work is continuing for the commissioning of the S-400 system, DEMİR said that the project will become operational step by step. DEMİR also underlined that the training processes were hindered due to the COVID-19 outbreak. Stating that the second phase of the project, which is the negotiations on joint production, are underway, DEMİR added that technical details regarding this issue are still being negotiated between the parties.

Underlining that the capabilities and infrastructure of the defense sector can be adapted to other fields, especially the field of CBRN, DEMİR provided information about what will steer the activities of the industry in the post-COVID-19 period. "The healthcare sector is a field with its own dynamics. Regarding how defense technologies can serve in this area, we have identified 4 areas:

- Patient care and remote treatment
- Disinfectants and Antivirals
- Data analysis and data analytics modeling
- Imaging devices

These will be our contribution to the healthcare sector, and we have launched various R&D studies in this regard. The national and indigenous model adopted by the defense sector will also

be implemented in the healthcare sector. In public procurements, it is our recommendation and priority to make purchases considering indigenous products, regardless of time. Preferring foreign products to obtain rapid results will not be healthy in the long term."

Prof. DEMİR: "There is no Problem with the Supply of F110 Engines"

During the live interview, President of Defense Industries Prof. Dr. İsmail DEMİR also took questions from the viewers about TF-X prototype engine selection and indigenous engine development, İSTİF (İ)-Class Frigate Project serial production process, Turkey's role in F-35 JSF F-135 Turbofan engines Depot-Level (D-Level) Maintenance, Hisar-A serial production process, the current status of the Hisar-U (SİPER) project, and Long-Range Air Missile Defense System identification studies with EUROSAM. "All elements of the F-35 project

have been suspended, and as such, the work at TEI has also ceased. We have started working on the TF-X engine, but the F110 engine will be used in the first phase. We consider a twin-engine design. Currently, there is no problem with the supply of F110 engines, which is an engine that we know very well. 5-6 engines have already been supplied. It is an engine that TEI has extensive experience in maintaining and repairing, so we feel it would be safer to start with this engine. Work on an indigenous engine is currently underway, but we are also in contact with numerous countries about the jet engine. An agreement was signed with EUROSAM for identification studies. This collaboration included a more comprehensive identification study for our needs based on the EUROSAM SAMP/T, but we have determined that it will not be the SAMP/T system. The identification study is practically complete; we are waiting for the results to be signed. After that, the process will continue. We

are at the stage of initiating studies towards how we will proceed to meet the needs of all three countries. For the I-Class frigates, the design is ready, and we are prepared to move to the construction phase. When we started the process, we decided to build 4 ships. We are considering the shipyards of both the Turkish Naval Forces and the private sector to construct the other 3 vessels. We have already prepared the necessary roadmap for the process to proceed fast. The moment we get the green light and the funds, we can open a tender and start the process. Regarding HİSAR-A, we changed the Hisar-A orders to Hisar-O due to the need for a medium-altitude air defense system in the field. We will reduce the number of Hisar-A orders. We started the serial production of Hisar-A; however, we will modify it for the Hisar-O system. So yes, the serial production of Hisar-A has been practically started. The experience we gained in the HİSAR-A and HİSAR-O will be transferred to SİPER. Equipping these



The Mock-up of Turkish Fighter Aircraft & F-110 Engine

missiles with longer-range radars and seekers is also on the agenda. Our institutions continue to work on this. As you know, the project has a predetermined schedule. In the meantime, we have an ongoing process for Man-portable air-defense systems (MANPADS). The systems are expected to be delivered soon."

Prof. DEMİR:
"GEZGİNs will be Effective at Longer Distances and will be Equipped with Higher-Impact Warheads"

Answering questions about other important projects, İsmail DEMİR stated the following in the second part of the interview: "We will complete the entire ATMACA family. GEZGİNs will be effective at longer distances and will be equipped with higher-impact warheads. Of course, the critical threshold here is the engine. Our engine studies for ATMACA and SOM are in a good situation. Their bigger versions will also slowly be on the agenda. It is vital to master the essential elements of cruise missile technology, and we have achieved it. Our companies continue to increase their capabilities in critical technologies for the localization of important systems such as INS. Regarding the guidance technologies, we will be taking the matter into our own hands. A land-based new version of the ATMACA missile will also be developed. The larger versions of our cruise missiles to be developed



F-515 I-Class Frigate

in the future will have both a stronger warhead and extended range. We are carrying out studies on warfare technologies based on our experience in the field. We have established our explosive and ammunition road map, and we believe that we should not lag-behind in this area. Our main goal is to equip the I-Class Frigates with indigenous weapon systems as much as possible. We may equip the first ship with only GÖKDENİZ and ATMACA, but for the next three vessels or TF-2000, we want the national vertical launching system and domestic air defense systems that Roketsan will integrate. We will integrate indigenous weapons as the systems evolve. Domestic and National products require a little patience. I want to thank the Armed Forces for their stance on this issue. There has not been a request for TRAKYA (LHD) yet, but it is possible to start if our shipyards are ready. We do not currently have a second LHD project. The construction process of TCG ANADOLU continues according to the schedule."

DEMİR assessed the

economic effects of the COVID-19 outbreak, the future of the Land Vehicles Sector and Cybersecurity in the post-pandemic period in the closing part of the live broadcast. İsmail DEMİR gave information about delays in payments, efforts to reduce foreign dependency in the Land Vehicles Sector and activities to raise awareness in the field of cybersecurity. "We are quite strong in the land platform sector, however, the steel that is specifically used for the armor of our land vehicles comes from foreign sources. OYAK has initiated a new process that we expect to yield results. The second is engine and transmission systems. We strongly stress that domestic power packs should be used in land platforms. It is incredibly important for us to have the armor, engine, turret, and optical systems produced indigenously. After this has been achieved, we will be able to enter foreign markets. Of course, we are developing very important subsystems and equipment such as Command Control systems for these vehicles. We are also

raising awareness of the importance of cybersecurity. We have a 149-member cyber cluster. The use of domestic products in the field of cyber defense and security currently is very low in Turkey. We need indigenous products in the field of cyber defense and cybersecurity. Moreover, for the evaluation and auditing of our cluster members, we will introduce a model like the Industrial Competency Assessment and Support Program (EYDEP). Recently, our defense sector companies have been subjected to cyber-attacks. These incidents have convinced us that the defense industry was deliberately targeted; thus, we plan to support our companies with the capacity we will create within the cluster. Regarding payments, we do not expect a delay linked directly to COVID-19, but if there is a delay in deliveries, payments will also be delayed. As a result of the increasing number of projects, the Defense Industry Support Fund should be updated. We are following every process to ensure the ecosystem is kept alive. It is vital that nobody is victimized during payment prioritization, and that jobs are not lost. This period has placed a burden on all countries, and Turkey is no exception. At this point, we must move forward while taking the pulse of the sector. There will be various opportunities in export markets, and our companies should be prepared for this" ■