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**BIMONTHLY DEFENCE AND SECURITY REVIEW FOR GREECE, CYPRUS, AND THE
SOUTHERN EAST EUROPEAN REGION**

ISSUE: July – August 2021

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Greek Defence News

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Shipbuilding industry in Greece

Greece's shipyards are Skaramangas, Elefsina, Syros and Avlida. Shipbuilding is an industry in which Greece has recorded a notable performance in the past. However, in recent years, shipbuilding activity in Greece has declined dramatically in terms of both volume and range of shipbuilding projects, while the large shipyards of Skaramangas, Elefsina have been facing serious problems that significantly impact the country's entire shipbuilding industry. An important part has also been played, mainly with regard to repairs, by the Piraeus-Perama ship-repair zone, which operates on the basis of independent small and medium-sized enterprises which in recent years have been also in deep crisis.

The present situation in the Skaramangas and Elefsina shipyards is characteristic of the recession plaguing the shipbuilding industry as a whole and of the dramatic fall in employment.

The under special administration company **Hellenic Shipyards S.A.** in Skaramangas, Attica is the largest shipyard in Greece, as well as being the largest one in the entire region of the eastern Mediterranean. It is a world-renowned shipbuilding industrial unit, whose founder was the emblematic Greek tycoon Stavros Niarchos. It has a history of more than sixty years and lengthy experience in the construction and repairs of many different types of vessels, among which are the most advanced conventional submarines globally. By virtue of ruling no. 725/08.03.2018 of the Athens Court of First Instance (Ex parte Proceedings), the

public limited company with the registered trade name "HELLENIC SHIPYARDS S.A." was placed in a regime of special administration of articles 68 and subsequent of Law 4307/2014.

Pursuant to the aforementioned ruling, Mr. Christodoulos Seferis was appointed as special administrator.

On July 7, Greece concluded a tender for the sale of Hellenic Shipyards SA, the country's biggest shipyards which has been under special administration, Greek finance minister said. The debt-laden shipyards, based in Skaramangas near Athens, are offering maintenance services to the Hellenic Navy and the sale has been part of Greek government drive to overhaul its loss-making Hellenic Defence Industry and boost the country's defence capabilities. A previous tender for the shipyards last year was inconclusive.

Forest Grove submitted the highest bid for the shipyards under administration, offering 25 million euros, Hellenic Shipyards SA said in a statement. In a separate tender for the sale of a real estate used by the shipyards, Milina Enterprises Company Ltd., linked to Greek ship owner George Prokopiou, submitted the highest bid, offering 37 million euros, Greece's real estate arm, Hellenic Public Properties Company said. "Today, a months' long effort to solve several issues was completed," Finance Minister Christos Staikouras said in a statement, adding that the total price, including other related assets sold, reached 78 million euros (\$92.02 million).

According to Athens News Agency, on 15 July 2021, Prime Minister Kyriakos Mitsotakis had a meeting with the highest bidder in the tender for the Skaramangas Shipyards, ship owner George Prokopiou, at the Maximos Mansion. According to sources, the prime minister expressed satisfaction with the outcome of the tender and said the government considers the revival of Greece's shipbuilding industry after a long period of decline to be very important. He also highlighted the special role that the Skaramangas shipyards play for the Greek armed forces. Prokopiou said that the government and prime minister inspire confidence and expressed his own faith in the country's prospects, noting that both the country's economy and the mindset of the Greeks was "starting to take off". He outlined his plans for the shipyard, saying these included the building of ships with high added value, as well as repairs.

© Skaramangas Shipyards



**MAKING
NAVAL HISTORY**



ΝΕΑ ΦΡΕΓΑΤΑ «ΨΗΦΙΑΚΗΣ ΕΠΟΧΗΣ»

Η Naval Group, ηγέτιδα ευρωπαϊκή δύναμη στα ναυτικά συστήματα άμυνας, με κληρονομιά που μετρά 400 χρόνια περίπου. Περισσότερες από 500 δεξιότητες συνεργάζονται για την ανάπτυξη φιλόδοξων και σύνθετων συστημάτων άμυνας. Οι καινοτόμες λύσεις, που σχεδιάζει, προστατεύουν τα συμφέροντα εθνικής ασφάλειας των συμμάχων της Γαλλίας.

He also noted that Greece has high-quality personnel, and that the shipyard's growth will provide jobs for highly skilled young people, many of which were now abroad. "Greece, which is the foremost naval power in the world, must also take the lead in innovation in the shipbuilding and repair sector," the prime minister said.

During the meeting, there was a discussion on the employment of the shipyard workers. Also present at the meeting were Finance Minister Christos Staikouras, Development and Investments Minister Adonis Georgiadis, Deputy Minister to the Prime Minister Thodoros Livanios and other officials.



© Elefsis Shipyards

Elefsis Shipyards is a Greek shipbuilding industry, also involved in other industrial constructions. Founded in 1968, it has constructed many types of ships, including the largest bulk carriers built in Greece and military ships. The latter include the *Jason-class* Tank Landing Ships (LST) developed by Elefsis Shipyards (first launched in 1987), a series of Fast Attack Crafts and the largest ship of the Greek Navy (Support Ship *Prometheus* on Italian designs).

Its latest constructions include an advanced high-speed ferry type, of which two have been so far delivered (in 2005 and 2007). Other company divisions and activities include ship repair and conversions, and industrial constructions. The latter has undertaken specialized metal and mechanical structures for the Greek industry, port cranes, huge mining equipment, as well as rolling stock, especially freight rail wagons. The company, like others in its field, has been hard hit by the crisis in the European shipbuilding sector and the intense competition from Southeast Asian companies. After its 1997 acquisition by Neorion shipyards things temporarily improved, but problems persist and there are talks for a necessary further consolidation of the Greek shipbuilding industry.

ONEX NEORION SHIPYARDS S.A is a shipbuilding, repairing and upgrading company, providing

integrated solutions covering ship design, construction and support tailored to their specialized needs while at the same time providing a complete set of support and maintenance services.

Greek Government expects that the project for the new frigate of the Hellenic Navy will boost the revival of the Greek shipbuilding industry and will create over a thousand direct shipbuilding jobs, and over a thousand indirect ship-related jobs across the Greek maritime sector. Candidate companies have submitted their proposal about maximising the involvement of the Hellenic Shipbuilding industry.

Naval Group Global CEO Pierre Eric Pommellet has renewed the group's commitment to delivering the best solution to address the Hellenic needs and to maximising the involvement of the Greek industry, universities and research institutes. Naval Group has submitted as part of the French Team with MBDA and Thales a comprehensive and robust package designed to ensure Greece has the best capabilities in the shortest timeframe with optimised costs. Regarding the shipyards, he said "Naval Group is committed to contributing to the revitalisation of the Greek shipyards and we are confident that with our support Skaramangas and Elefsis will be able to build this latest generation frigate here in Greece. Naval Group has a solid experience in local construction all around the world.

Babcock's comprehensive package of support and industrial strategy would see it support the modernisation of Greek shipyard facilities, underpinned by partnering proposals with Hellenic industry to develop local workforces and transfer knowledge and technology within the wider domestic shipbuilding supply chain – all undertaken as part of the company's commitment to Greece.

Israeli Shipyards and their Greek partner, Onex Neorion Shipyards offer a longer and wider vessel: The Themistocles-class corvette to be built in Greece.



© ONEX NEORION SHIPYARDS S.A

Naval Group commits to working with Greek shipyards and local industrial and academic ecosystems for the frigates program and beyond

A few weeks ago during his visit in Athens, Naval Group Global CEO Pierre Eric Pommellet has renewed the group's commitment to delivering the best solution to address the Hellenic needs and to maximising the involvement of the Greek industry, universities and research institutes.

Naval Group has submitted as part of the French Team with MBDA and Thales a comprehensive and robust package designed to ensure Greece has the best capabilities in the shortest timeframe with optimised costs.

At a press briefing, Pierre Eric Pommellet presented the FDI frigate and its outstanding capabilities. He explained that “thanks to the Aster 30 missile which is a standard feature of our ship, the FDI HN is the only frigate offered to the Hellenic Navy capable of protecting efficiently high value units or areas at sea, shore facilities, cities and Greek islands.” He also said that “the French program is well underway with the first-of-class already in production in our shipyard in Lorient for a delivery in early 2024. Because the FDI frigate is already in production, we can offer a short time delivery to Greece with the first FDI HN in service by 2025.”

He also gave details about the robust Hellenic Industry Participation plan proposed by Naval Group. Naval Group has deployed a team of experts on the ground to identify and meet the Hellenic companies interested in joining the frigates programs or other projects with Naval Group.

“We have identified close to 100 companies, already had exchanges with more than 70 including METKA, AKMON, STELMA, MILTECH, PRISMA, THALES Hellas, Terra Spatium, Hydrus Engineering. We are now entering the next phase by addressing them requests for proposals.”

Regarding the shipyards, he said “Naval Group is committed to contributing to the revitalisation of the Greek shipyards and we are confident that with our

support Skaramangas and Elefsis will be able to build this latest generation frigate here in Greece. Naval Group has a solid experience in local construction all around the world. Engaging with local partners and transferring our technologies is in our DNA.” Naval Group has been present in Greece since 2008 and wants to develop its footprint in the country for the frigates program but also beyond. During the event, Pierre Eric Pommellet explained how the know-how and technologies transferred for the frigate program will irrigate the Hellenic ecosystem and raise the level of excellence of the entire sector, sustaining jobs and economic benefits beyond the local construction and sustainment of the FDI HN. Greek partners of Naval Group will also have the opportunity to join the international supply chain of the group and participate in other projects.

Naval Group organised “R&D partners days” on 22 and 23 June in Athens for meetings with industry partners and with FORTH-ICS on 24 in Heraklion for academic meetings. A webinar was also organised the following week for companies that could not attend and would like to join the R&D projects. These events supported Naval group's ambition to support Greece becoming a global centre for naval innovation and were a fantastic opportunity to meet with current and new partners and discuss on-going and future projects in cutting edge domains such as additive manufacturing, predictive maintenance, drones or naval mission systems.

Naval Group has signed partnerships with the National Technical University of Athens (NTUA), the University of Patras and the Foundation for Research and Technology-Hellas (FORTH) and is already working on cyber security applied to the naval and maritime domains with Greek partners in the frame of different European programs such as CYBERMAR as well as the PESCO Pandora and H2020 projects.



UK MoD awards THEON SENSORS with the delivery of THERMIS CS thermal imaging systems



THEON SENSORS has been awarded with a contract for the supply of THERMIS CS thermal imaging systems following a recent international tender by the United Kingdom MoD for the procurement and support of Sniper In-Line Low Light System (SILLS) - Long Wave InfraRed (LWIR) Thermal Sight "Weapon Sight 2".

The initial order includes the delivery of 500 units THERMIS CS within 2022, with options to procure

additional units to be delivered by THEON SENSORS over the life of the contract in collaboration with its UK based partner Active Electronics.

The design and development of THEON SENSORS thermal imaging systems allow multiple platform capability (found on man portable, vehicular, aerial-drones) that result on high-end product families. THEON SENSORS night vision and thermal imaging products are currently fielded by the majority of the NATO End Users providing cross-operational capability and overhaul support on today's overdemanding collaborative environment.

Dr. Michalis Kolotos, 5EYES Armies Business Development & US Operations Director, THEON SENSORS, stated: "We are honored by the trust and selection of the UK MoD. THEON SENSORS is determined to empowering overmatch through its Thermal Imaging – THERMIS Clip-On Sight (12um) solution for the UK operators. This contract follows an earlier award by the Canadian Armed Forces for the DAMON (NV) and THERMIS (TI) clip-on solutions for a similar Sniper Program, as well as sales of thermal imaging systems in European and Far Eastern countries".

THEON SENSORS is a world-renowned and recognized manufacturer of electro-optical night vision and thermal imaging systems used by military and law enforcement customers in more than 55 countries around the world. The development and production of the systems is made in Athens, Greece, whereas its worldwide business activities are supported by now five subsidiaries, in Germany, USA, UAE, Saudi Arabia and Singapore, with co-productions facilities in Middle and Far East. THEON SENSORS is part of EFA GROUP of companies that have a leading-edge position in the international markets in the fields of aerospace, security, defense and industrial cooperation.



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MINISTRY OF DEFENCE

➔ Greece takes delivery of 1st of 18 French Rafale warplanes



On 21 July 2021, the Minister of National Defence Mr. Nikolaos Panagiotopoulos met in Paris with the Minister of Defence of the French Republic Ms. Florence Parly. During the meeting they discussed matters pertaining to the further enhancement of the bilateral defence cooperation and highlighted the

importance of the delivery of the first Rafale fighter aircraft to the Hellenic Air Forces which reflects the Strategic relation between Greece-France and the strong long-lasting ties of friendship, cooperation and solidarity.

Hellenic Air Force took delivery the first of 18 French Rafale fighter jets, part of a major military procurement plan as the country seeks to upgrade its armed forces. Defense Minister Nikolaos Panagiotopoulos attended the delivery ceremony in Istres in southern France, describing it as a “milestone day for the Greek Air Force.”

In January 2011, Greece signed a 2.3-billion-euro (\$2.7 billion) deal for acquiring 18 Rafale aircraft, including 12 used and six new aircraft built by Dassault Aviation. They are to be delivered over the space of two years, starting this month.

“This purchase will contribute to the further reinforcement of the combat capability and deterrent power of the Air Force and the armed forces, whose main mission is the defense of the territorial integrity and the sovereign rights of our homeland,” Panagiotopoulos said. The minister also stressed the close defense ties between Greece and France, saying the purchase “demonstrates our determination to further strengthen not only our bilateral relations, but also our cooperation for stability and prosperity in the wider eastern Mediterranean region.”

Eric Trappier, chairman and CEO of Dassault Aviation described the Rafale as “a strategic game-changer for the Hellenic Air Force. It will play an active role by security Greece’s leadership as a major regional power.”

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➔ **Defence Minister informs Parliament on Armaments Programs status**



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On 28 July 2021, the Minister of National Defence Nikolaos Panagiotopoulos informed the members of the Special Standing Committee on Armaments Programs and Contracts of the Hellenic Parliament about the implementation status of the following armaments programs of the Hellenic Armed Forces:

- Activation of Helicopters OH-58D “Kiowa Warrior” follow-on support program.
- Activation of LOA refunding program to support Hellenic Army’s aerial means.
- Activation of Helicopters CH-47D “Chinook” follow-on support program.
- Activation of a program regarding the conclusion of an agreement for the Depot Level Maintenance of two C-130 transport aircraft.
- Ratification of the decision for the implementation of a program regarding the inspection and maintenance of the RAM Guided Missiles.

➔ **Official Visit by the Chief of Hellenic National Defense General Staff (CHNDGS) to Israel**



© HNDGS

On Thursday 14th of July 2020, the Chief of Hellenic National Defense General Staff (HNDGS) General Konstantinos Floros, paid an official visit to Israel, following an invitation extended by the Chief of General Staff, Lieutenant General Aviv Kochavi.

During the visit, the two leaders met and discussed issues of mutual interest with an emphasis on developing a common vision for enhancement stability and peace in the Eastern Mediterranean region, in the light of recent developments.

Both sides reaffirmed the benefits of their cooperation at the military level, in which joint actions and exercises are carried out with the participation of assets and personnel from all three branches of the Armed Forces. Discussion focused also to further deepen cooperation.

**HELLENIC ARMED FORCES
ARMAMENT PROGRAMS**

➔ **Chief of Joint Staff Announces Defence Procurement Priorities of the Hellenic Armed Forces**



During his speech on the last day of DEFEA, the Chief of the Hellenic National Defence General Staff, General Konstantinos Floros, outlined Greece’s defence procurement priorities over the coming years, including the upgrade of various weapon systems currently used by the Hellenic Armed Forces.

He stressed, among other things, that “the first priority is to ensure the existing weapon systems and capabilities, in order to optimally exploit them”.

He also referred to the ongoing programs of modernization and acquisition of new material.

Specifically, he pointed out:

- **Upgrading the operational capabilities of the Hellenic Army**

- Acquisition of armored wheeled vehicles, military trucks and general-purpose vehicles
- Acquisition of long-range guided missiles
- Acquisition of new rifle for the Hellenic Army
- Modernization of existing artillery weapon systems



© HNDGS

- Maintaining all our transport and attack helicopters
- Acquisition of parachutes
- Acquisition of high-speed crafts for the Hellenic Army's special forces

- **Upgrading the operational capabilities of the Hellenic Navy**

- Acquisition of 4 new Frigates
- Acquisition of 2 used Frigates that will be an intermediate solution until the acquisition of the new ships.
- Upgrading of the of the 4 MEKO type Frigates.
- Upgrading the operational capabilities of the Hellenic Navy's Maritime Patrol Aircraft P-3B
- Acquisition of 7 new MH-60 ROMEO helicopters,
- Acquisition of modern heavyweight torpedoes to equip the S-214 type submarines
- Acquisition of all types of navy ammunition and guided missiles for the replenishment of the existing stocks

- **Upgrading the operational capabilities of the Hellenic Air Force**

- Acquisition of RAFALE Aircraft
- Upgrading of F-16 block 52 and Block 52+ to the F-16V Viper standard
- Establishment and operation of the International Flight Training Center of the Hellenic Air Force in Kalamata

– Acquisition of cruise missiles, anti-ship missiles



HELLENIC ARMY



Military Multi-Mission parachute system

On 25 July 2021, the General Directorate for Defence Investment and Armaments awarded a contract to the Spanish company «CIMSA INGENIERIA DE SISTEMAS S.A, valued of 465.218,79 €, regarding the procurement 37 JANUS-300 free fall parachutes. The JANUS-300 Tactical System is a Military Multi-Mission parachute system for solo and tandem jumps with versatile ram-air canopies for airborne operations from 33,000 Ft MSL. The JANUS Tactical System allows various configurations of the state-of-the-art Plus Tactical Ram-Air Canopies (7, 9 and 11-Cell) with the JANUS-300 Harness/Container System according to the specific task of each user. The JANUS-300 Tactical System has been specifically designed and engineered for overt and covert Military Special Air Operations of:

- SOF (Special Operations Forces), Tactical Assault Groups and Long-Range Reconnaissance Patrols
- (HALO and HAHO Infiltration into hostile territories) - SAR (Search & Rescue) and CSAR (Combat Search & Rescue) insertion for support, cover, first aids and recovery of distress personnel in high-risk situations.
- Military Tactical Free Fall Training.

The JANUS-300 Tactical System allows the following solo jump mission configurations with both oxygen systems and cargo equipment.

1. BOC Ripcord for Spring Pilot Chute
2. Over-the-Shoulder Ripcord for Spring Pilot Chute
3. BOC Hand Deploy
4. Self-Set Drogue
5. Static Line Drogue
6. Double Bag Static Line (DBSL)

JANUS-300 harness/container presents the following main characteristics:

JANUS-300 harness/container presents the following main characteristics:

P/N Harness/Container Assy. 406009-300
Configuration Dual Size Universal Main fabric Cordura 1000 Ds Protector fabric Ballistic Adjustment points 8 Cargo attachment points 6 Main container closing 1-pin Reserve container closing 1-pin Drogue release Double Reserve deployment system Double AAD Pre-installation Cypres, Vigil Max. Operating Speed (KIAS) 150/1652 Max. Operating Weight (kg) 160/2501 Max. Operating Altitude (Ft) 25000/330002 Min. Operating Altitude (Ft) 2000 Canopy range (Sq.Ft) 310-370 Harness/Container Assy. Weight (kg) 9 1 Maximum suspended weight (pilot + parachute + passenger + passenger harness + cargo) never must be over than reserve canopy maximum operating weight. 2 Depending on reserve canopy choose.

➔ Free Fall Parachutes

On the 16th of August 2021, the 2nd Executive Contract No. 06A/2021 of the Framework Agreement No. 001A/2020, regarding the program «Supply of Free Fall Parachutes of Infiltrating of New Technology» was signed between the GDDIA and the Spanish company «CIMSA INGENIERIA DE SISTEMAS S.A.».

■ HELLENIC NAVY

➔ The new frigate of the Hellenic Navy

On 5 June 2021, the MOD Political and Military Leadership during a meeting held in Prime Minister office presented the results of the evaluation of the proposals submitted to the Hellenic Navy related to the four new frigates acquisition program. Candidate shipyards have been shortlisted from the following countries in alphabetical order: France, Germany, Holland, Italy, the United Kingdom, the USA.

The meeting chaired by the Prime Minister Kyriakos Mitsotakis was also attended by the Minister of National Defence Mr. Nikolaos Panagiotopoulos, HNDGS Chief General Konstantinos Floros, HNGS Chief Vice-Admiral Stylianos Petrakis, Ministry of Defence Secretary General Mr. Antonios Economou, GDDIA General Director Mr. Aristides Alexopoulos, National Security Advisor Mr. Thanos

Dokos and Prime Minister's Secretary General Mr. Grigorios Dimitriadis.

Minister of National Defence, referred to the program, stated "We are going to purchase four frigates that we believe it is necessary some of these ships to be built in Greek shipyards and we must work for that. Not only to have them built in our shipyards, but to have more defence industries that will take part in their construction".

➔ Anti-torpedo countermeasure system for submarines



© LEONARDO

The Italian company LEONARDO has been selected to equip the Hellenic Navy's S-214 submarines with its anti-torpedo countermeasure system. The C303/S is an anti-torpedo countermeasure system for submarines, designed to counter the attacks of acoustic homing torpedoes, active/passive, lightweight and heavyweight, wire and non-wire-guided, through the use of expendable low-cost, lightweight, highperformance Stationary Jammers and Mobile Target Emulators. Budget estimates 10.000.000 €

■ HELLENIC AIR FORCE

➔ GREECE – F-16 SUSTAINMENT MATERIEL AND SERVICES

The State Department has made a determination approving a possible Foreign Military Sale to the Government of Greece of F-16 Sustainment Materiel and Services and related equipment for an estimated cost of \$270 million. On 3 August 2016, the Defense Security Cooperation Agency

delivered the required certification notifying Congress of this possible sale.

The Government of Greece has requested to buy U.S. Government and contractor engineering, technical, and logistics support services for F-16 Aircraft Structural Integrity Program (ASIP), F-16 Aircrew Training Device (ATD), Low Altitude Targeting and Infrared for Night (LANTIRN), and Reconnaissance (RECCE) Pods support programs; aircraft classified and unclassified aircraft software and software support; Multifunctional Information Distribution System (MIDS) software support; Joint Mission Planning Software (JMPS) support; participation in Electronic Combat International Security Assistance Program (ECISAP), International Engine Management Program (IEMP), and technical coordination groups; other aircraft and engine hardware and software modifications and support; spare and repair/return parts and equipment; personnel training and training equipment; publications, manuals, and technical documentation; and other related elements of aircraft maintenance and program support. The total estimated value is \$270 million.

This proposed sale will support the foreign policy and national security objectives of the United States by helping to improve the security of a NATO ally, which is an important partner for political stability and economic progress in Europe.

The proposed sale will improve Greece's capability to meet current and future threats by providing agile logistics support to its F-16 program, encompassing aspects of aircrew training and aircraft maintenance. The ability to provide this level of support to the F-16 program will increase its interoperability with NATO forces and enhance its ability to provide for security of its borders. Greece has demonstrated a continued commitment to modernizing its military and will have no difficulty absorbing this additional sustainment support into its armed forces.

The proposed sale of these services will not alter the basic military balance in the region.

The principal contractors for this proposed sale are L3/Harris International, Melbourne, Florida; Lockheed-Martin Aero Corporation, Fort Worth, Texas; Collins Aerospace, Charlotte, North Carolina; Northrop Grumman Corporation, Falls Church, Virginia; Raytheon Company, Waltham, Massachusetts; and Atec, Incorporated, Houston, Texas. The purchaser typically requests offsets. Any offset agreement will be defined in negotiations between the purchaser and the contractor(s). Implementation of this proposed sale will not require the assignment of any additional U.S. Government

or contractor representatives outside the United States.

There will be no adverse impact on U.S. defense readiness as a result of this proposed sale. This notice of a potential sale is required by law. The description and dollar value is for the highest estimated quantity and dollar value based on initial requirements. Actual dollar value will be lower depending on final requirements, budget authority, and signed sales agreement(s), if and when concluded.

On 19 May 2021, the State Department has also made a determination approving a possible Foreign Military Sale to the Government of Greece of FMSO II, CLSSA Services, and related equipment for an estimated cost of \$165 million.

➔ Follow on Support for Helicopters AS-332C1 SUPER PUMA

On 20 July 2021, the General Directorate for Defence Armaments and Investments- GDDIA, has extend the deadline for the Tender 06/17 related to the Follow-on Support for Helicopters AS-332C1 SUPER PUMA. Budget estimates 37.767.204 €. Interested companies should submit complete technical and financial offers by 24 August 2021.

HELLENIC DEFENCE INDUSTRY

➔ IDE and OHB Hellas: Partners of a European program in the Space and Defense area

ODIN'S EYE ("multinational Development Initiative for a Space-based missile early-warning architecture") is one of the 26 selected projects for funding by the European Commission, in the frame of the European Defense Industrial Development Program 2020 (EDIDP 2020). ODIN's EYE targets the development of an autonomous European Space Based Missile Early Warning (SBMEW) system, to create situational threat awareness against ballistic and novel hypersonic threats.

OHB System AG, a subsidiary of space and technology group OHB SE, leads the consortium of this space surveillance and early warning project. The ODIN's EYE consortium consists of 34 partners from 12 EU Member States, with the support, among others, of the Hellenic Ministry of Defense.

INTRACOM DEFENSE (IDE) and OHB Hellas are valuable partners of ODIN's EYE consortium as they contribute with state-of-the-art technologies in Secure Communications and Cybersecurity frameworks (IDE) and On-Board Data Processing for satellites (OHB Hellas), applicable in the demanding field of the critical satellite systems.

This marks the first presence of Greek industries in a European Space Defence project under the EDIDP framework.

ACTIVITIES OF FOREIGN INDUSTRIES IN GREECE RELATED TO THE HELLENIC ARMED FORCES ARMAMENTS PROGRAMS

→ ELBIT

On 24 August 2021, a meeting was conducted between HAIRGS officers and representatives of the Israeli companies ELBIT and SIGINT ELISRA. The aim of the meeting was to present EW companies' capabilities. ELISRA is a wholly owned subsidiary of Elbit and supplies Electronic Warfare solutions such as missile warning systems, active jammer systems, laser and IR detection systems for several kinds of aircraft and ground vessels of the Israel Defense Forces (IDF).

→ OPT PRECISION

On 23 August 2021, a meeting was conducted between HNDGS, HAGS, HNGS and HAIRGS officers and representatives of the German company opt Precision.

→ MILKOR

On 5 August 2021, a meeting was conducted through videoconferencing between HAGS officers and representatives of the South African company Milkor. The aim of the meeting was to present company's MODAR-BC developed for implementation on smaller ships or vehicles after the successful introduction of the MODAR technology on German Federal Police ships. The MODAR-BC is accordingly smaller, with only slightly reduced performances. It also allows optical monitoring in nearly any weather conditions, day and night. Object-tracking, sector scan as well as optional large depiction of the camera channels make it possible to analyse the right image source for each situation.

→ RAYTHEON

On 27 July 2021, a meeting was conducted through videoconferencing between HNDGS and HAGS

Staff officers and representatives of the US company RAYTHEON. The aim of the meeting was to present company's anti-tank weapon systems JAVELIN and TOW.

→ NEXTER

On 20 July 2001, the French company NEXTER conducted a field presentation of the VBCI wheeled armored vehicle to the Hellenic Army Staff officers. The VBCI is a wheeled 8x8 infantry fighting vehicle with modular protection that can be adapted to the threat. Conditional orders have been placed to cover the supply of 700 vehicles to the French Army in two versions. The VCI infantry fighting vehicle version has a combat weight of 26t and accommodates the two crew, the gunner, the driver and a combat team of eight troops and a commander. The troops can rapidly embark or disembark from the power operated ramp door at the rear of the vehicle.

→ RH MARINE

On July 7th, 2021, a meeting was held between the GDDIA Staff Officers and the Dutch company RH MARINE representatives after their request. In the meeting were discussed issues concerning the Offset Contracts 34/99 and 10/03, and the provisions of the Hellenic Law 4376/2016.

NATO

→ TURKISH FIGHTERS DEPLOYED TO POLAND MAKE THEIR FIRST INTERCEPT

Two Turkish F-16s flying from Malbork, Poland under NATO's Air Policing mission made their first intercept of an unknown aircraft on 20 July, 21. Allied fighters scramble 24/7 to identify aircraft without a flight plan or without a flight transponder to safeguard Allied airspace.

In the morning of 20 July, the Combined Air Operations Centre at Uedem, Germany, recorded an unidentified track in the Baltic Sea flying from Kaliningrad to mainland Russia and ordered an alert scramble for the Turkish F-16s mission to identify that track. After take-off, the Turkish F-16s, flying under NATO control approached and identified a Russian Il-20 (COOT ALPHA).

Having Turkish and Polish staffs working together to put fighter jets in the air is developing vital relationships for the future. And at the same time, assure the Allied populations of NATO's commitment to this enduring defensive mission "The deployment of Turkish F-16s to Malbork Air Base, Poland epitomises NATO cohesion and

solidarity across Europe," said Brigadier General Ertunç Ertufanlı, Deputy Chief of Staff Plans.

"Having Turkish and Polish staffs working together to put fighter jets in the air is developing vital relationships for the future. And at the same time, assure the Allied populations of NATO's commitment to this enduring defensive mission," Brigadier General Ertunç Ertufanlı added.

The Russian Il-20 intelligence gathering aircraft flew over international waters close to Lithuania; it was not on a flight plan and not sending a transponder signal causing a potential risk to other airspace users. Upon completing the identification, the Turkish fighter aircraft returned to Malbork Air Base. *#Story by Allied Air Command Public Affairs Office*

ESDP

➔ **CROWN: European multifunction radiofrequency system project launched**



© EDA

Europe's defence research programme - PADR - has launched a new project. The CROWN project will focus on European active electronically scanned array with combined radar, communications and electronic warfare functions for military applications.

The project, with a budget of approximately €10 million and a duration of 30 months, was selected under the 2019 call for proposals for 'Electromagnetic Spectrum Dominance' under the EDA-managed EU Preparatory Action on Defence Research (PADR). The CROWN consortium is coordinated by Indra (Spain) and brings together 11 leading industry members, research centres and an SME from seven EU countries. The project was officially launched at an online kick-off meeting on 6 and 7 July 2021, with the participation of the

consortium members, EDA and European Commission representatives.

CROWN will lay the foundation for designing and building a next-generation multifunction radiofrequency (RF) system based on Active Electronically Scanned Arrays (AESA) technology for a broad range of applications, to become available in several military domains within the next decade.

The planned activities include R&D assessment and recommendations on critical technologies, R&T activities on system and component level as well as designing, manufacturing and testing of a small-scale prototype.

CROWN - European active electronically scanned array with Combined Radar, cOMmunications, and electronic Warfare fuNctions for military applications - brings together 11 participants from 7 countries: Indra (Spain), Thales (France), Office National d'Etudes et de Recherches Aérospatiales - ONERA (France), Hensoldt Sensors (Germany), Fraunhofer-Gesellschaft (Germany), Saab (Sweden), Totalforsvarets Forskningsinstitut - FOI (Sweden) Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek - TNO (Netherlands), Leonardo (Italy), Elettronica (Italy) and Baltijos Pazangiu Technologiju Institutas - BPTI (Lithuania).

Being part of the PADR programme, CROWN will support the European Commission, EDA and Member States and will contribute to the long-term critical capability for European Strategic Autonomy. The project is also closely linked to the activities conducted under EDA's Capability Technology Groups, namely CapTech Radar and CapTech Components.

The CROWN project is part of the Preparatory Action on Defence Research (PADR) launched by the European Commission in 2017 to assess and demonstrate the added value of EU supported defence research and technology (R&T). It paved the way for a proper European Defence Programme to come as part of the European Defence Fund (EDF), under the EU's Multiannual Financial Framework (2021-2027).

The PADR implementation is run by EDA following the mandate via a Delegation Agreement between the European Commission and EDA signed on 31 May 2017. By this agreement the Commission entrusts EDA with the management and implementation of the research projects launched within the PADR.

CYPRUS

➔ Minister Stefanović in talks with Chief of Cypriot National Guard



© <http://www.mod.gov.rs>

On 11 August 2021, Deputy Prime Minister and Minister of Defence, Nebojša Stefanović, PhD met with the Chief of the Cypriot National Guard, Lieutenant General Dimokritos Zervakis, who is on an official visit to the Republic of Serbia.

Minister Stefanović pointed out that Serbia and Cyprus cultivate traditionally friendly relations, based on historical closeness, mutual respect and understanding. General Zervakis reiterated that Cyprus maintains consistent position regarding the non-recognition of the so-called Kosovo and stressed the importance of mutual support in protecting sovereignty and respecting the principles of international law.

Minister Stefanović thanked Cyprus for its unwavering support for Serbia's efforts to maintain territorial integrity and sovereignty and pointed out that our country also strongly supports the territorial integrity and sovereignty of the Republic of Cyprus. He said that Serbia is also trying to help preserve peace and find a long-term sustainable and acceptable solution through the participation of members of the Serbian Armed Forces in UNFICYP (UN Peacekeeping Force in Cyprus) for which General Zervakis thanked him.

The interlocutors expressed mutual commitment to further promotion of defence cooperation, especially in the military to military and military-technical fields. Minister Stefanović pointed out that participation in joint exercises is the best way to achieve interoperability and build the capabilities of the two armed forces, especially amidst the increasingly complex challenges at the global level. He expressed hope that the ongoing talks over

military-technical cooperation will result in the procurement of weapons and military equipment, to the mutual satisfaction of both sides.

Also, Stefanović sent an invitation to the Minister of Defence of the Republic of Cyprus for an official visit to the Republic of Serbia and said that the "Partner 2021" Fair, which is to be held in October, is a good opportunity for that. General Zervakis expressed hope that the meetings with the Ministry of Defence and the Serbian Armed Forces officials will help intensify and improve the quality of defence cooperation. (source <http://www.mod.gov.rs>)

REPUBLIC OF SERBIA

➔ Meeting between Chief of Serbian Armed Forces General Staff and KFOR Commander



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On 19 August 2021, the Chief of the Serbian Armed Forces General Staff, General Milan Mojsilović, met with the KFOR Commander, Major General Franco Federici.

During the meeting, they discussed the current security situation in the Autonomous Province of Kosovo and Metohija, along the administrative line and in the Ground Safety Zone, as well as joint activities of the Serbian Armed Forces and KFOR, aimed at improving peace and security in the southern Serbian province.

General Mojsilović pointed out that the Serbian Armed Forces and KFOR's mutual goal is to preserve peace and security in the areas of responsibility on both sides of the administrative line

and that KFOR, as an international factor, is most responsible for the security of the population in Kosovo and Metohija, especially the non-Albanian population. (source <http://www.mod.gov.rs>)

TURKEY

Meteksan Defence

Meteksan Defence, which was assigned by the Defence Industries Presidency of the Republic of Turkey with the approach of "Turkey's Underwater Center of Excellence", transfers its sonar capabilities for surface platforms to submarine platforms. Systems developed by Meteksan Defence for submarine platforms include hydrophones, side scan sonar arrays, intercept passive sonar, intercept detection and ranging sonar, digital underwater acoustic modem, hardware and software for sonar systems pre-electronics, signal processing and beam forming, sonar operator interface software. While these completely domestically and nationally developed systems are being used for the modernization activities of existing submarines in the Naval Forces Command inventory, they are also of great importance for the Turkey's MILDEN National Submarine Project, where national design activities are ongoing.

MSH-01 Hydrophone, which is completely developed by Meteksan Defence with its own resources, is being used as sensors of passive sonar cylindrical hydrophone array (CHA), passive ranging sonar hydrophone array groups, wet-end side own noise analyses (ONA) systems and cavitation indication (CI) systems of AY/PREVEZE class submarine ships.

MSH-01 can be used in the said sonar systems of Type 209 Mod 1000 to Type 209 Mod 1400 class submarines, which are in service both in the Turkish Navy and in worldwide Navies.

Meteksan Defence also produces the sensors, which are mounted along starboard and port sides of submarine hull and form the wet-end side of flank array sonar. The MSH-11 sensor is also intended to be used in flank array sonar systems of Type 209 Mod 1400 class submarines, which are in service both in the Turkish Navy and in worldwide Navies.

Being Contractor of the Sonar Sub Systems of TÜBİTAK BİLGEM in the MUREN PREVEZE National Production Integrated Underwater Combat Management System Development Project, Meteksan Savunma is assigned as responsible for the development of pre-electronic equipment that amplifies and converts the analog signals coming from sensors to digital, as well as the signal processing and beam forming hardware and software of these digital signals. In addition, the sonar developed by Meteksan within the scope of the Intercept Detection and Ranging Sonar (IDRS) Project will be integrated into our PREVEZE Class submarines within the scope of the Project.

Özgür Cankara, Vice President of Meteksan Defence, explains the importance of the submarine sonar systems they have developed as follows; "As you know, the work of the National Submarine (MILDEN) Project continues at a great pace. Sonar systems are one of the important components of this project, in which maximum local contribution is observed. As Meteksan Defence, we work not only for today's but also for the future's sonar technologies. By adapting the Fiber-Optic Acoustic Sensors we are developing to submarine platforms, we aim to contribute to the submarine needs of the future in the MILDEN Project.



DEFEA 2021 was carried out in complete success

Earning international praise from high-level visitors and exhibitors, the first edition of DEFEA organized by ROTA SA, the largest exhibition company in Greece, was carried out in complete success. Vassilis Barkas, Defea Project Manager, in an exclusive interview given to the [Greek Defence News](#) presents the post show key facts and figures.



© DEFEA - Defea Project Manager Vassilis Barkas

Greek Defence News Did DEFEA attract wide interest and participation by international defence industry?

Vassilis Barkas Firstly, let me tell you that DEFEA 2021 was globally the first covid-free

defence exhibition that organized with absolute compliance to all safety protocols applied by the Health Authorities, creating a safe environment for networking and cooperation.

So, we are very proud to announce that the first edition of DEFEA was completed in total success, earning the international praise from high-level visitors and exhibitors as well. It was organized on July 13-15, 2021, in Athens, Greece at Metropolitan Expo, the largest and most advanced exhibition centre in Southeast Europe. The Exhibition was organized under the auspices and with strong collaboration of the Ministry of National Défense by ROTA Exhibitions, with the support of Greek Manufacturers of Defence Material Association.

Indeed DEFEA 2021 attracted the international attention with 315 leading defence industries from 22 countries participating as exhibitors to present their latest technologies and defence systems. Impressive national pavilions from 9 countries with state-of-the-art products and equipment as well as individual companies with the most advanced solutions in every category of the defence and security sector.

As about visitors, DEFEA attracted 12.129 professionals from 54 countries representing the most important private and state-owned companies in the world, offering top-tier services and facilitations. Presidents, Vice Presidents, CEOs and General Directors of companies such as Dassault Aviation, MBDA, Damen, Lockheed Martin, Airbus, Naval Group, ARQUUS, Ceska Zbrojovka, Thales, ThyssenKrupp Marine Systems, Nexter, IAI, IWI, ELBIT, Boeing and BAE were present at the exhibition and made flattering comments about DEFEA and the contacts they have made in Athens.

Greek Defence News Could you please give us some details about participation of international official delegations?

Vassilis Barkas DEFEA 2021 met an enormous success regarding the official visit of foreign VIPs and officials as well. In total 45 official national delegations, represented at political and military level, from 36 countries visited the exhibition.

It was the Ministry of Defence' and the organizers' common goal to establish through DEFEA a framework of international contacts, industrial cooperation and information exchange on modern technological developments creating opportunities for networking and agreements.

Seven Ministers of Defence, and in particular those of Italy, Portugal, Slovenia, Bosnia and Herzegovina, Georgia, North Macedonia and Cyprus, attended DEFEA 2021. Together with them, the Deputy Ministers of Defence and Armaments of Britain, Armenia, and Bulgaria.



Additionally the Chief of the General Staff of the Armed Forces of U.A.E, the Secretary General of the Ministry of Defence of Iraq, the Chief of the Czech Armed Forces, the Chief of the Rwandan Armed Forces, the Director General of the Ministry of Defence of Cyprus and the Chief of the National Guard General Staff of.

The exhibition was also visited by the Executive Director of the European Defence Agency (EDA), Mr. Jiri Sedivy, and the Head of the NATO Support and Procurement Service (NSPA) Mr. Patrick Fesquet. During the exhibition, Mr. Sedivy had a meeting with the Minister of National Defence, Mr. Nikolaos Panagiotopoulos.

Greek Defence News This year Greece came back spending on defence procurement, after a long period (more than a decade) reducing military spending. Was DEFEA relevant for the Hellenic Armed Forces new armament program priorities?

Vassilis Barkas Indeed, with the Greek Navy's new frigate programme underway, DEFEA has become a focal point for the major shipbuilding industries on both sides of the Atlantic. The French Naval Group, the Dutch shipyards Damen, the British Babcock, the Italian Fincantieri, the German ThyssenKrupp Marine Systems and the American

Lockheed Martin were exhibitors at DEFEA and they had constant contacts with the Ministry of National Defence.

However, the future armament procurement priorities of the Hellenic Armed Forces are vital as well. During his speech at DEFEA, the Chief of the Hellenic National Defence General Staff, referred that "the first priority is to ensure the existing weapon systems and capabilities, in order to optimally exploit them". He also referred to the ongoing programmes of modernisation and acquisition of new material.

Specifically, he pointed out the upgrade the operational capabilities of the Army by acquiring weapon systems, such as armoured reconnaissance vehicles, long-range guided missiles and other ammunition, and by the modernisation of Artillery weapon systems, the maintenance of all transport and attack helicopters, the programmes for the upgrading of the individual armament of the personnel as well as of the general-purpose vehicles. The programme for strengthening the Navy includes not only the acquisition of 4 new Frigates, but also, ready to deliver surface ships as an intermediate solution to cover immediate operational requirements. The mid-life upgrade of the 4 MEKO type Frigates was also mentioned.

Furthermore, the operational capabilities of the Navy are upgraded with the modernisation of the Maritime Patrol Aircraft P-3B, the acquisition of 7 new MH-60 ROMEO helicopters, as well as the supply of a new type of heavy torpedoes for the new submarines. At the same time, the support of the Fleet units continues, while the replenishment of stocks of ammunition and guided missiles is in progress.

The Hellenic Air Force already acquired the RAFALE aircraft, the first of which is expected next January. At the same time the F-16 block 52+ and F-16 block 52+ Advance are upgraded to VIPER configuration, with a large participation of Hellenic Aerospace Industry.

Along with the combat-ready aircrafts, of course, the high level of training provided to our pilots is also in demand. That is why, a modern flight training centre is to be formed in Kalamata, with the prospect to become a facility for international clients as well.

At the same time, the implementation of programmes for the upgrade and maintenance of the fleet of the existing aircrafts and the maintenance of the national Air Defence System continues.

To meet the needs of the newly established Special Warfare Command, programmes such as the supply of parachutes, materials and spare parts for vehicles and high-speed crafts, new high-speed special-purpose crafts, as well as sniper rifles and equipment with all types of ammunition are in progress.

An important upgrade is the Field Command and Control improvement with the supply of modern satellite communications wireless stations.

Greek Defence News How do you see the future DEFEA in the next years? What would the Hellenic MOD, Hellenic Armed Forces and the Hellenic Defence Industry want to see from next DEFEA as a show?"

Vassilis Barkas DEFEA aspires to once again make Greece a leader in the field of defense exhibitions, shaping the conditions that will allow it to become a hub of interstate contacts and industrial cooperation internationally.

Greece strategically located in the centre of the Eastern Mediterranean, is the crossroads of the geopolitical developments of a wider region, which includes Southeastern Europe, the Middle East and the approaches to the Black Sea.

As the developments continually reshape the geopolitical equilibrium, our country must remain the constant factor of stability. Greece, as a member of the traditional defense and security institutions, has pioneered collaborations that shape the new reality in Eastern Mediterranean.

A central pillar of this development effort is to maintain an efficient defence industry, to support the Armed Forces and undertake whatever necessary for their constant modernisation. We work very close with the Ministry of National Defense under the auspices of which DEFEA is materialized, as well as with the General Directorate for Defense Investments and Armaments as well as the Greek defence associations to reach this goal.

At the next edition of DEFEA – Defence Exhibition Athens that will take place on 9th-11th of May, 2023, at Metropolitan Expo, in Athens, Greece will be the meeting point for the international defense industry and officials, facilitating technical and geostrategic briefings and international co-operation.



DEFEA was carried out in total success

Earning the international praise from high-level visitors and exhibitors alike, the first edition of the prestigious defence exhibition DEFEA was completed in total success, presenting 315 leading exhibiting defence industries from 22 countries and visited by 45 official national delegations, represented at political and military level, from 36 countries.

From 13th to 15th of July, 2021, Metropolitan Expo, the largest and most advanced exhibition centre in Southeast Europe, hosted highly specialised visitors from 53 countries representing the most important private and state-owned companies in the world, offering top-tier services and facilitations.

DEFEA 2021 was globally the first covid-free defence exhibition that took place in total compliance with all safety measures and health protocols, creating efficiently through excellent organisation and planning a safe environment for networking and cooperation.

Inaugurating DEFEA 2021, the Greek Minister of National Defence, Mr. Nikolaos Panagiotopoulos underlined that the exhibition "is a platform for international contacts, industrial cooperation and exchange of information on modern technological developments".

He also added: "There is no doubt that the exhibition will present the most advanced systems that global defence market can provide, proving once again that the evolution of defence systems is a 'driving force' for technology."

The largest and most prominent defence industries around the world participated as exhibitors showcasing their latest technologies and the defence systems that will prevail in the future. Impressive national pavilions with state-of-the-art products and equipment and private companies with the most advanced solutions in every category of the defence and security sector covered the halls of the exhibition centre offering to visitors and officials an integrated view of the capabilities of modern military technology.

The official delegations that visited DEFEA were comprised of political and military leaders of the highest level, invited by the Hellenic Ministry of National Defence. The countries that were represented through official presence were: Albania, Algeria, Armenia, Austria, Bahrain, Bosnia-Herzegovina, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, France, Georgia, Germany, Hungary, Indonesia, Jordan, Iraq, Israel, Italy, Netherlands, North Macedonia, Pakistan, Philippines, Portugal, Republic of Korea, Rwanda, Romania, Russia, Saudi Arabia, Slovakia, Slovenia, Spain, United Arab Emirates, United Kingdom and United States of America.

During the exhibition, leaders of the delegations had important meetings with the Greek hosting Minister of National Defence, Mr. Nikolaos Panagiotopoulos, and the Hellenic military leadership led by the Chief of the Hellenic National Defence General Staff, General Konstantinos Floros.



A roundtable discussion about the European Defence was carried out, in which the Ministers of Defence of Slovenia, Mr. Matej Tonin, of Portugal, Mr. Joao Gomes Cravinho, and of Cyprus, Mr. Charambos Petrides commented. The discussion was coordinated by the Executive Director of European Defence Agency (EDA), Mr. Jiri Sedivy, while the Commissioner of Internal Market, Mr. Thierry Breton greeted through video message. The event was streamed live through the official channel of Hellenic Ministry of Defence and the social media with the presence of the Greek Deputy Minister of National Defence, the Chief of the Hellenic National Defence General Staff and the Chiefs of the three branches of the Hellenic Armed Forces.

The procurement programme of the Hellenic Navy of 4 new frigates, as well as the parallel solution and the upgrade of in-service frigates was again at the centre of general interest. Mr. Nikolaos Panagiotopoulos, referred to the programme, emphasising: "We are going to purchase four frigates that we believe it is necessary some of these ships to be built in Greek shipyards and we must work for that. Not only to have them built in our shipyards, but to have more defence industries that will take part in their construction. One of our two shipyards, the "Hellenic Shipyards" of Skaramagas, was acquired by a group of businessmen, led by a Greek shipowner. I think this will give a boost to the domestic shipbuilding industry, beyond the problems of the past". Regarding the development of Greek shipbuilding industry, the Greek Minister of Development and Investments spoke in a related conference in front of an international specialised audience.

In parallel with the exhibition, an impressive static display was organised at the nearby international airport of Athens, in a specially designed area. The airport static display was comprised of multi-role aircrafts and helicopters, with highlights an AH-64 Apache attack helicopter, a S70 Aegean Hawk naval multi-mission helicopter, a tactical transport NH90 helicopter and an OH-58 Kiowa helicopter for armed reconnaissance.

All participants expressed their satisfaction with every detail of the exhibition, and they emphasised their return in two years' time.

The next edition of DEFEA – Defence Exhibition Athens will take place on 9th-11th of May 2023, at Metropolitan Expo, in Athens, Greece.



IAI Exhibited Advanced Capabilities at DEFEA in Greece

Aerospace Industries (IAI) participated in the DEFEA Exhibition 2021 (July 13-15, Athens, Greece). During the DEFEA exhibition, IAI presented a variety of cutting-edge defense solutions for air, naval and land applications including C-130 maintenance capabilities, the Barak MX Air & Missile Defense System, loitering munition capabilities, flagship MMR radars and more. IAI is excited to join the defense community and further cooperation with Greece and hopes to establish new opportunities for the near- and long-term future.

Last year, the Israel Ministry of Defense leased IAI's Heron system in its maritime configuration to Greece over three years, with an option to purchase the system upon completion of the leasing period. The Heron system, equipped with both day and night activity platforms, maritime patrol radars and satellite communications, offers extended operational endurance in a wide range of scenarios including maritime patrol, marine and land border protection, search and rescue, disaster management and more.

In addition to UAV expertise, IAI is one of five worldwide MRO centers with Center Wing Box (CWB) replacement experience, as part of the C-130 Life Extension, and has performed it for the Israeli Air Force (IAF). IAI is a world class aerospace MRO and house for military and commercial transport aircraft, with high quality products, approved and licensed by a wide range of civil aviation authorities including the CAAI, FAA, EASA and others.

The Barak MX is an advanced Air & Missile Defense System that provides a single integrated solution for multiple simultaneous aerial threats from different sources and different ranges. The system aggregates several key cutting-edge systems: a digital radar, weapon control system, launchers, a range of interceptors for different ranges with advanced homing devices, data-link communication and system wide connectivity.

The flagship MMR Radar is combat proven and has extensive operational experience in Israel and around the world. The radar detects airborne threats, classifies them, calculates their threat level and provides essential data that enables systems to neutralize multiple threats simultaneously.

The loitering munitions family developed by IAI includes the Harpy-NG – a third generation of the system

homing against radiating targets, the HAROP, a second-generation of a precision electro-optical attack system, the Mini-Harpy, dual (Electro-optical day& night + Anti-Radiation seeker) tactical advanced munitions system and the tactical loitering Green-Dragon system, as well as the ROTEM VTOL Tactical Loitering Munition.



© IAI - MMR RADAR



© IAI - Mini Harpy



© IAI - Barak ER

Drone and Hybrid Systems presented by INTRACOM DEFENSE in DEFEA 2021



Koropi, July 20th, 2021: INTRACOM DEFENSE (IDE) participated in the International Defence & Security Exhibition “DEFEA 2021”, held in Athens, Greece, between 13-15 July 2021.

IDE’s exhibition area was visited by the Minister of National Defense, Mr. Nikolaos Panagiotopoulos, the Minister of Development and Investments, Mr. Adonis Georgiadis, the Minister of Finance, Mr. Christos Staikouras, the Deputy Minister of National Defense, Mr. Alkiviadis Stefanis and the Chiefs of General Staff of the Hellenic National Defence, of the Hellenic Army, the Airforce and the Navy.

Meetings were also held with government representatives and military delegations from various countries, as well as defense industry executives, who had the opportunity to be updated on the company’s state-of-the-art Manufacturing Capabilities for advanced Radar and Missile Electronics, and its innovative products in the areas of Communication & Information Systems, Hybrid Electric Power and Unmanned Systems.

The display of the RX-3plus Hellenic Tactical Unmanned System, the result of a cooperation between the Aristotle University of Thessaloniki, IDE and CFT, was among the highlights of the exhibition.

IDE had the honor to exhibit, by courtesy of and in cooperation with the Hellenic Ministry of Defence, a Leopard 2A4 capability upgrade demonstrator. The MBT was displayed with a GENAIRCON hybrid power supply & management system of INTRACOM DEFENSE, integrated in cooperation with KMW and HDVS, and a C4I capability based on IDE’s WiSPRevolutions CIS and Rheinmetall’s Iniohos C2.

IDE powered its exhibition stand by one of its HGT20K tactical mobile hybrid generators, throughout the duration of the event.

INTRACOM DEFENSE (IDE) is a highly acclaimed Defense Systems Company in Greece, with an outstanding record of participation in domestic programs and exports to quality-driven international customers.

IDE utilizes high-end technologies in the design and development of advanced products in the areas of Missile Electronics, Tactical IP Communications,

C4I Systems, Surveillance, Hybrid Electric Power Systems, and Unmanned Systems. The Company retains its international recognition through the long-standing participation in European and NATO new technology development programs. Utilizing advanced production capabilities and large-scale project management know-how, IDE is a key player in the high technology sector of the Hellenic Defense Industry.



© IDE



demonstrated at DEFEA its small arm's platforms and riot control solutions

IWI demonstrated at DEFEA its small arm's platforms and riot control solutions at the SK Group booth, along with Meprolight, Camero-Tech, Israel Shipyards, and Elvo, the newest member of the SK Group. Israel Weapon Industries (IWI), located in the center of Israel, has been a world leader in the production, marketing, design, and development of unrivalled weapons for over 85 years. IWI's products are deployed by the Israel Defense Forces (IDF) and worldwide. All of IWI's weapons have been battle proven around the world under adverse and extreme environmental conditions.

IWI is a member of the SK Group, owned by Mr. Samy Katsav, consisting of companies in the defense scope manufacturing a wide array of unique and matchless products worldwide.

The company's weapon systems include the New CARMEL® and ARAD® Assault Rifles, the trust worthy TAVOR® Assault Rifles, the X95® (Assault Rifle & SMG), the DMR (Designated Marksman Rifle) TAVOR 7®, the reliable NEGEV® Light Machine Guns, the well-known GALIL ACE® Assault Rifles, the renowned GALIL SNIPER® S.A. Rifle, DAN.338® Bolt Action Sniper Rifle, the legendary UZI® SMG in its latest evolution – UZI® PRO the acclaimed JERICHO® pistols and the new MASADA® striker-fired pistol. All these small arms have been considered weapons of choice by Governmental, Military and Police Entities, as well as Law Enforcement Agencies around the world, along with commercial markets.

The company's firearms are developed in close collaboration with Israel Defense Forces (IDF). IWI and the IDF have established joint Research & Development teams to create these weapons, whose ultimate configurations are the product of ongoing interaction, field tests, and modifications resulting from combat requirements and experience.

All IWI weapon systems comply with the most stringent military standards (MIL-STD) and ISO 9000 standards, applied by the IDF.

IWI US is a subsidiary company active in the USA governmental and commercial markets and has successfully commenced its business operations and exceeded expectations; the TAVOR® SAR – only in its first year in the USA – has been selected by American Rifleman Magazine for the prestigious Golden Bullseye Award as the Rifle of the Year. This

award is a symbol of excellence and innovation in firearms.

The expansion is a natural extension of the company's global strategy. IWI also focuses on upgrading existing military platforms adapting technologies and know-how to the customers' requirements, thus providing cost-effective solutions while improving their capabilities. As a

member of the SK Group, customers can benefit from the strong synergy among the companies, with the ability to provide a thorough operational solution to each customer's demands and needs.



© DBDC

Nexter Presented VBCI Philoctetes at DEFEA

On the first edition of the DEFEA exhibition, that is held in Athens from July 13 to 15, 2021, Nexter presented the VBCI Philoctetes for the first time. This is a complete infantry combat system, armed with a remotely operated 40mm CT (cased telescoped) turret from CTAi and a medium-range missile launcher (MMP) from MBDA. It meets the Greek army's requirements for mobility, protection, modularity, and firepower. Named Philoctetes, in reference to the mythological hero of the Trojan War, the vehicle will be displayed on the stand (Hall 3 – D17A) in the livery of Greek military machines. Nexter also presented the 105 LG artillery gun, which is perfectly suited to simple use requiring a highly deployable fire support capability. In order to meet the Greek Army's artillery ammunition requirements, Nexter is exhibiting its range of 105mm and 155mm conventional ammunition, its smart ammunition (BONUS and KATANA), as well as propellant charges and fuses. In addition, a large sample of the ammunition catalogue can be seen on the stand— 20, 25, 30 and 40mm CT medium-calibre ammunition alongside 40, 76, 100 and 127mm naval ammunition, as well as protective smoke grenades.

In the field of medium-calibre guns, Nexter presented the 40CT gun on the VBCI Philoctetes, chosen by the French (RapidFire, JAGUAR), British (Ajax) and Belgian (JAGUAR CaMo) armies.

The 40mm gives a real superiority of calibre compared to the 30mm and covers a wider range of targets (UAVs, aircrafts, light vehicles). The 30mm gun is also highlighted since it equips the Mirage 2000 (30x113) and Rafale (30x150) combat aircrafts in Greece. In addition, the P20 pintle-mount system, known for its performance, ease of maintenance and reliability, is on display at the stand. Finally, Nexter's robotics entity presented its Nerva range of ground robots equipped with various mission modules, as well as the IXOS multi-mission aerial drone, which can be equipped with an optronic ball or an explosive charge to treat an individual target.

Nexter, the leading French land defense company and third European player in the ammunition sector is part of the KNDS Group. The scope of its business includes the supply of weapon systems and ammunition as well for air and naval forces.

Nexter also provides systems and protection solutions in the field of homeland security. The group continues to apply its international development policy with several order intakes in 2020 intended for the export market. In France, Nexter is fully committed to meeting the objectives of the SCORPION program, through the upgrade of the Leclerc tank and the development of the VBMR GRIFFON and EBRC JAGUAR vehicles within the temporary business venture between Nexter, Thales and Arquus, as well as the Lightweight VBMR SERVAL. The group's range of products also includes TITUS® and VBCI armored vehicles, CAESAR® and 105LG1 artillery systems, smart ammunition (BONUS), robots, many equipment, as well as customer service, support and revaluation.



© NEXTER

Russia Targets NATO countries at DEFEA

Rosoboronexport (Russia's state mediator in military trade) presented its national defense technology at DEFEA 2021 in Athens. Greece has become the first NATO country to buy the Russian defense equipment since 1990s, including S-300 long range ADS, Tor and Osa SHORADS, Kornet ATGM and ZUBR air cushion landing craft.

"Rosoboronexport notes with great satisfaction the systematic and effective work with Greek partners, despite severe restrictions related to unfair competition on the part of most European countries. Today, the company fulfills its obligations under previously concluded contracts. After-sales service of the delivered Russian naval equipment, as well as air defense systems, does not cause complaints from the partner. Rosoboronexport looks forward to increase military-technical cooperation with Greece and other friendly European states participating in the exhibition," said Alexander Mikheev, Director General of Rosoboronexport.

The previously supplied systems enjoyed excellent records from the Greek military so the smart weaponry such as Kornet-EM latest version of ATGM can attract special interest. The new version of the famous missile has a longer firing range of 10km being capable to penetrate 1200 mm of armor behind the tank active protection. Kornet has been developed by the Tula-based Shipunov KBP Design Bureau, part of the High Precision Weapons Holding (HPW). The Khrizantema-S anti-tank system is another HPW product being developed by the Kolomna KBM.

One can also notice artillery systems such as Msta-S self-propelled howitzer with NATO's 155 mm caliber, and Tornado-S 300 mm MLRS, the latest derivative of the Smerch by the SPLAV Company. A variety of small arms of the NATO caliber could be seen as well.

Russian pavilion has not been limited just to the Army products. Visitors and experts acquainted with a wide range of samples for the Air Force, Navy and Air Defense, with Su and MiG aircraft, Mi and Ka helicopters, Gepard-3.9-class frigate and Amur 1650 conventional submarine, Pantsir-S1 SPAAG and Verba (Willow) MANPADS among the many. The «fashionable» UAV and counter-drone systems were on display too.

«The company's delegation provided comprehensive information on the Orion-E unmanned aerial vehicle, which Rosoboronexport has started promoting worldwide in a reconnaissance/strike version. A model of the Orlan-10E unmanned aerial vehicle could be seen as well», - said the company representative.

In addition, Russia is offering counter-drone electronic warfare systems such as the Repellent and its mobile version, Repellent-Patrol, mounted on a light SUV. Both claimed to be tested in real combat operations.

Needless to say the Greek-Turkish long standing tension as well as the Ankara recent purchase of the S-400 long range ADS form up a fertile soil for further defense sales from Russia.

© DBDC



Naval Group exhibited at DEFEA in Greece

From 13 to 15 July 2021, Naval Group participated in the first edition of DEFEA, the Athens Defence Exhibition in Greece organised by the Hellenic Ministry of National Defence. Naval Group showcased its state-of-the-art military ship offer, illustrated by the FDI frigate, the most modern new generation frigate. During this exhibition, Naval Group also presented its skills to provide services to meet its customers' requirements and to arrange short timeframe innovative strategic partnerships in transfer of technology. Naval Group was the main partner of DEFEA.

Contributing to naval and industrial autonomy in Greece Naval Group is committed to its customers to provide high performance naval military capacity and to stand by them for the long term. Nava Group supports its partners in developing national security through transfer of technology for the production and maintenance of their defence systems and contributes to their self-reliance and sovereignty. The company has been established in Greece since 2008 and is able to bring its robust track-record in terms of large and successful technology transfers worldwide.

During DEFEA, Naval Group reiterated its commitments to develop strategic partnerships with the Greek Industry and the Hellenic Navy. Naval Group submitted as part of the French Team with MBDA and Thales a comprehensive package designed to ensure Greece has the best capabilities in the shortest timeframe with optimised costs as well as a robust Hellenic Industry Participation plan. Naval Group presents its comprehensive offer for modern fleets

Naval Group is one of the few companies in the world with the ability to deliver directly or in transfers of technology a complete range of warships with their combat systems and all the critical equipment necessary to engage naval power in a theatre of operations.

Naval Group's booth on DEFEA will reflect this comprehensive offer with a focus on surface ships and innovative solutions.

The FDI frigate is the 5th generation of combat ship for naval supremacy and crisis management. This warship is designed for navies looking for a compact frigate able to perform a large range of missions stand-alone or within a task force either.

Like the FREMM, the FDI frigate features high level capabilities in anti-air, antisurface, anti-submarine and asymmetric warfare domains, taking into account French Navy operational legacy acquired in wartime situation.

As the first digital frigate, **FDI frigate** integrates latest-generation systems around a naval digital distributed cloud architecture, natively cyber-secured and compatible with the new Information Technologies developments and evolutions and provides sailors with adapted services. Different versions are available to embrace the specific needs of each navy.

The French Navy will operate five FDI frigates. The first of them is already in production and will be delivered in 2024 and the next two in 2025.



The FDI HN will meet all the requirements of the Hellenic Navy and the first could be in service as soon as early 2025. Naval Group's offer includes to build 3 of the 4 frigates in Greece.

Gowind® is a military-engineered compact surface combatant equipped with a set of state-of-the-art, combat-proven anti-submarine, anti-surface and anti-aircraft systems to NATO standards. Gowind® takes the best of the latest technological advances developed and mastered by Naval Group for large frigates, in order to anticipate and meet future operational requirement. It integrates the latest generation of combat systems developed by Naval Group, SETIS®, the "Panoramic Sensors and Intelligence Module (PSIM)" - a combination of the integrated mast with its various sensors and the Operational Centre and associated technical premises - and the high level of integration, automation and user-friendliness of the Naval Group systems. The Gowind® corvette is already sea proven with the Egyptian navy and after a first of class built in France in only 38 months, the rest of the series is successfully being built in Egypt.

The whole products and services offer of Naval Group will be displayed through **Naval XPlore**. Thus, delegations will be able to discover the whole Naval Group's warships offer in virtual operational situations.

Naval XPlore is an interactive, immersive and customisable miniature 3D center. In a closed room in the booth, visitors will face the increasing complexity of the operational environment of a warship, combined with the diversity of threats and the performance of new weapons. Time and priority management is essential to enable them to establish a clear, accurate and up-to-date tactical picture, as well as to properly counter short-term threats. Thanks to operational feedback and continuous investment in R&D, Naval Group demonstrates through the Naval XPlore experience how the ships of Naval Group and its combat management systems provide intelligent and innovative solutions to meet the needs of the navies.

Naval Group is the European leader in naval defence. Naval Group uses its extraordinary know-how, unique industrial resources and capacity to arrange innovative strategic partnerships to meet its customers' requirements. As a system-integrator and prime contractor, the group designs, produces and supports submarines and surface ships. It also supplies services to shipyards and naval bases. Attentive to corporate social responsibility, Naval Group adheres to the United Nations Global Compact. The group reports revenues of 3.3 billion euros and has a workforce of 15,798 (data for 2020).



© NAVAL GROUP

MBDA and Naval Group join forces to develop new remote assistance solutions

The remote assistance service deployed by Naval Group and MBDA for the French Navy achieves several objectives: provide prompt diagnostics and a repair solution to naval systems users in all locations and in all circumstances.

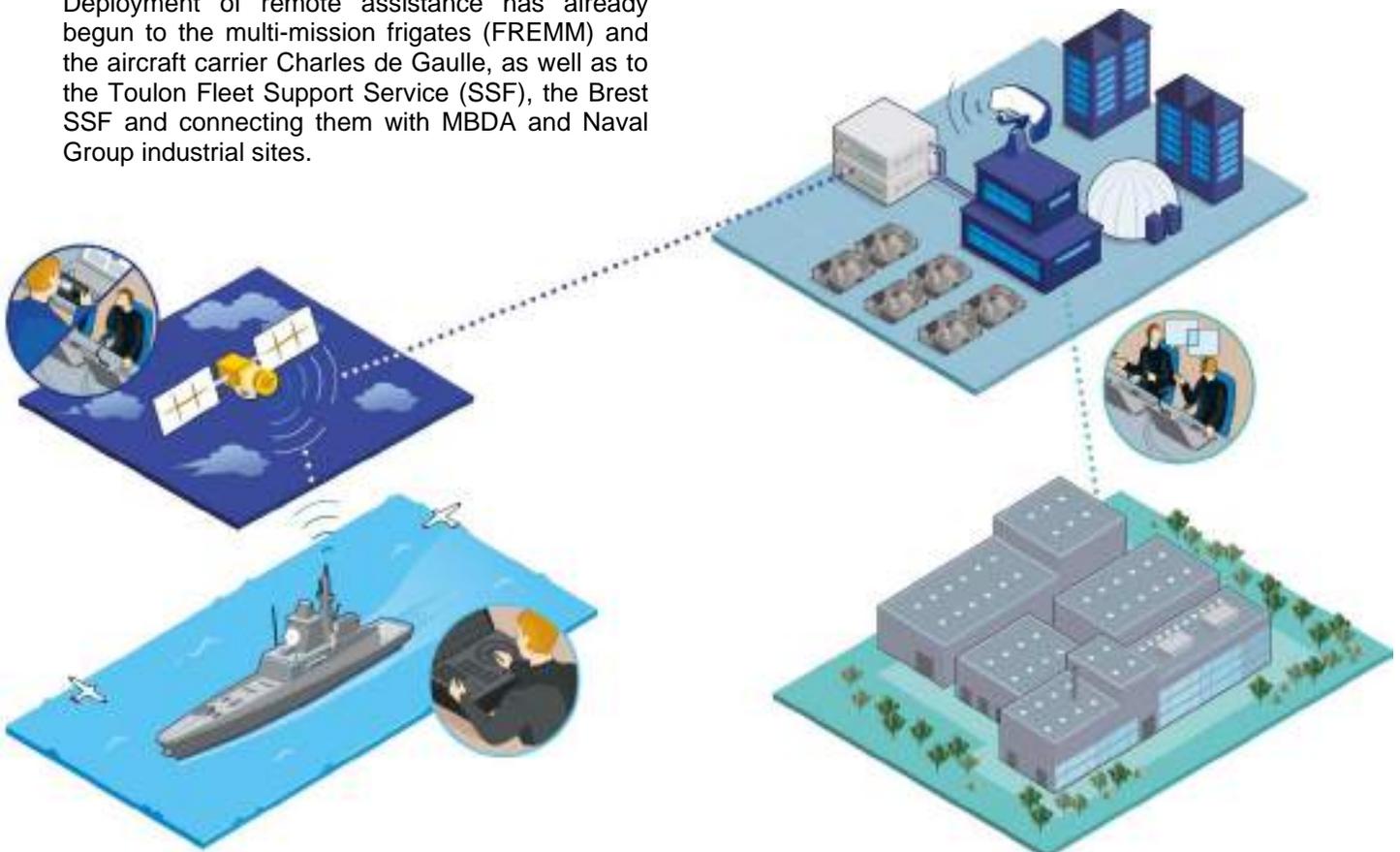
Remote assistance is a secure, end-to-end encrypted multimedia communication system linking the ship with onshore support facilities. It enables the crew to set up a fully confidential, real-time, dialogue with the French Navy and other state and/or industry experts to; assist diagnostics in the case of breakdowns; provide greater autonomy for the maintenance personnel; and help with the preparation for maintenance periods on returning from missions. Remote assistance can thus help improve the availability of ships in operation.

Deployment of remote assistance has already begun to the multi-mission frigates (FREMM) and the aircraft carrier Charles de Gaulle, as well as to the Toulon Fleet Support Service (SSF), the Brest SSF and connecting them with MBDA and Naval Group industrial sites.

Pascal Gendre, MBDA Group Customer Support & Services Director, stresses that "We are well aware of the critical nature of our products and systems for the armed forces, and MBDA has always made a point of honour of working with its customers throughout the life cycle of their equipment, guaranteeing them a high level of operational availability. Today we have the satisfaction, alongside Naval Group, of being able to provide our support to the women and men who are committed to the defence of our country, at any time, wherever they may be."

Vincent Martinot-Lagarde, Naval Group Director of Services, adds: "This remote assistance solution developed with MBDA contributes to offering our customers greater operational availability of their ships. The remote assistance service enables simultaneous discussions with the French Navy fleet support service and the crew of a ship to assist the crew and solve a technical problem at sea. Furthermore, the remote support kit can be deployed as part of the preparation of an upkeep period for an overhaul of the ship."

© NAVAL GROUP



EODH SA Engineering - The Protection Experts

EODH SA Engineering Office Deisenroth Hellas is a leading producer and supplier of protection systems for light, medium and heavy vehicles and any kind of other platforms. The backbone of EODH is a complete range of passive and active cutting-edge protection technologies. These technologies allow designing of comprehensive and future oriented survivability solutions for all kinds of land, air and sea platforms. These solutions are covering all current and upcoming threats in conventional and asymmetric warfare.

In its over ten year proved track record EODH with its own new production facilities has become an important global partner to the defense market with activities in Greece, Europe and Middle East Countries, providing innovative solutions for specific needs. EODH is a partner in the LEO 2 A6 Production and a major player in the manufacturing and integration of its protection solutions.

EODH ballistic protection solutions are based on most advanced NANO-technology materials. They comprise special ceramics, new metal alloys and high strength natural fibres. The combination of these materials also allows the design of high-performance composite solutions.

The mine and IED protection solutions provided by EODH take advantage of the outstanding performance of the NANO materials which are also used for the ballistic protection and the liner products. The high strength materials can absorb much higher amounts of energy. Therefore, with the new products vehicles can be protected against mine levels that could not be achieved before.

EODH liner products are made from high strength natural NANO fibres. These fibres show an outstanding dynamic performance resulting in liners with much higher ballistic performance compared to liners made from chemical fibres. The new liners can be used at significantly higher temperatures while maintaining their strength.

The new liner products are also used to design composite materials allowing the production of even complex structural parts of vehicles at significantly reduced weight.

The EODH Transparent Ceramic Protection has many advantages compared to standard armor glass. They offer weight reduction about 70%, multi-hit capability, visibility after multi hit attack, larger temperature range, same or higher light transmission in visible and IR range.

© EODH SA



Israel Aerospace Industries (IAI) Selects RTI Connex as the Connectivity Software for the OPAL Application Framework

Basing OPAL on Connex Software Enables IAI to Align with the Future Airborne Capability Environment (FACE™) Technical Standard

Real-Time Innovations (RTI), the largest software framework company for autonomous systems, today announced Israel Aerospace Industries (IAI), a world-leading aerospace and defense company, has selected RTI Connex® DDS for real-time connectivity as part of its Operational Avionics Layer (OPAL) Application Framework. IAI's OPAL serves as the infrastructure for networking connectivity, data sharing, and operative actions for air, land and naval forces. By using Connex to manage data communications, IAI is able to help customers in the Defense industry implement new applications in a fraction of the time while reducing operational costs, decreasing development complexity, and enabling faster time to market. In addition, the OPAL application framework built on Connex DDS will readily enable companies to meet Modular Open Systems Approach (MOSA) program requirements.

Under combat conditions, critical variables, such as poor visibility and unpredictable enemy behavior emphasize why it is vital that warfighter teams must be able to securely and reliably communicate at all times. However, if each friendly force operates on its individual network domain or communication channel, interoperability and joint operations are challenging if not impossible. Without the right technology in place, important data can easily remain stalled in operational silos and not instantly accessible to Command-and-Control (C2) system operators. Conquering this barrier and introducing real-time interoperability capabilities is critical to securing optimal results from any innovative new operational application that is added to a combat platform. Traditionally, the process of adding these new applications to an airborne platform and achieving full integration could easily take upwards of five to eight years and cost hundreds of millions of dollars.

Shortening these implementation cycles was the primary mission for IAI to develop the OPAL application framework. By implementing RTI Connex DDS, IAI was able to reduce the process of adding applications to airborne platforms from roughly 60 months to just five months. RTI enabled a turnkey approach that now allows defense customers to introduce new applications faster than

ever before, which in turn, equates to significant cost savings while accelerating time to market. Connex DDS also delivers the software architecture needed to achieve real-time situational awareness and unified communication to gain a comprehensive operational picture of the battlefield.

Another key highlight of basing OPAL on the DDS standard is that this aligns OPAL with the Future Airborne Capability Environment (FACE™) Technical Standard, Edition 3.1, which defines an open avionics environment for all military airborne platform types. In addition, deploying an Integrated Modular Avionics (IMA) architecture enables OPAL to efficiently introduce new applications while reducing the impact of change and advancing the FACE approach. With this standards-based architecture, OPAL can continue to evolve and deliver even broader compatibility and capability into global avionics platforms.

“We created OPAL to provide a solution for different platforms to communicate with one another. RTI Connex serves as a critical component within the OPAL to provide our customers with seamless cross-platform interoperability, while reducing time to market dramatically,” said Tal Zaharoni, Deputy General Manager, Conversions and Upgrades Division, IAI. “We are proud to collaborate with RTI and look forward to combining our efforts to provide the best possible system.”

“The ability to communicate between joint operations forces is one of the most critical and complicated aspects of the warfighting environment when each entity has developed their own unique and proprietary system,” said Chip Downing, Senior Director, Aerospace and Defense at RTI. “We are proud to be working with a world-leading aerospace and defense company like IAI who breaking barriers in battle management is. We look forward to continuing our work together as we combine the power of the OPAL framework with the globally-proven software in Connex DDS to drive significant advancements for our customers.”

© IAI



IAI to produce F-16 wings for Lockheed Martin

Israel Aerospace Industries (IAI) has resumed the production of F-16 wings for Lockheed Martin, using the assembly line established in the 1980s. IAI recently reopened the production line following increased worldwide demand for the F-16 Block 70/72. IAI will produce F-16 wings that will be shipped to the F-16 final assembly line in Greenville, South Carolina, USA.

Boaz Levy, IAI's President & CEO, said, "The many years of cooperation between IAI and Lockheed Martin demonstrate another important milestone. Resuming the production of F-16 wings is a continuation of a decades-long cooperation of manufacturing aerostructures for Lockheed Martin customers. The F-16 assembly line once again joins IAI's assembly center of excellence for the production of fighter aircraft wings.

The center also produces F-35 wings along with T-38 wings for the American defense establishment. IAI stands at the forefront of the civilian and military aviation industries in the world and will continue being the first address for many global companies."

Joshua (Shiki) Shani, Chief Executive, Lockheed Martin Israel, said, "The reopening of the F-16 wings production line in the IAI facilities is an additional important milestone in Lockheed Martin's long-standing industrial cooperation with the Israeli industries. Now, IAI is producing outer wing boxes for the advanced F-35 and wings for the F-16 fighters, both having new customers in growing numbers, worldwide. So far, Lockheed Martin has initiated and maintained significant long-term economic relationships with the State of Israel and its local industries. The company has invested billions of dollars with Israeli defense and aerospace industries because of the high quality, cutting-edge technology that Israeli industry offers. We are continuously looking to expand our cooperation throughout all our programs."

The F-16 is a strategic and valuable choice for many customers around the world seeking advanced, 4th generation fighter aircraft capabilities, regional and worldwide partnerships, and affordable lifecycle costs. Five nations have chosen the F-16 Block 70/72 for these reasons and more. IAI's Aviation Group is a leader in developing and producing advanced composite materials technologies, avionic structures, and assemblies. It offers a dedicated line for making F-35 outer wing boxes and their skins. With these capabilities, the Aviation Group serves the world's largest aerospace companies, including Lockheed Martin, Boeing, major airlines such as Alitalia and WizzAir, and leading shipping companies such as Amazon and DHL.

© IAI - F-16 production line, IAI Facilities



thyssenkrupp MarineSystems receives largest order in its history

thyssenkrupp Marine Systems has officially been commissioned to build six identical Type 212CD submarines. The procurement organizations of Norway and Germany signed the corresponding contracts today. Due to the pandemic situation, the ceremony took place on a small scale and virtually; the customers were connected via video conference in Kiel. After the event, CEO Dr. Rolf Wirtz said: “The 212CD order is a major milestone. The Norwegian and German navies are getting the most modern submarines in the world, international and industrial teamwork will permanently shape cooperation in the maritime sector, and we have created capacity utilization for our company. Today is a good day for our employees and for thyssenkrupp!”

Worth approx. 5,5 billion Euro, the order comprises the delivery of two submarines to the German Navy and four to the Norwegian Navy.

Only yesterday, on 7 July, thyssenkrupp Marine Systems and its Norwegian industrial partner Kongsberg signed a cooperation agreement. Industrial cooperation between Germany and Norway is a cornerstone of the 212CD project – thyssenkrupp Marine Systems relies on the Norwegian company Kongsberg for this project and for other projects on the world market. After signing the contract with Kongsberg on 7 July 2021, CFO Paul Glaser commented: “with Kongsberg, we have a strong partner with whom we will continue to realize many projects together in the future. The contract with Kongsberg is by far the largest part of the 212CD project – a sign of how close the connection between Norway and Germany really is.”

Norway and Germany had already entered into a cooperation in 2017 that goes beyond the construction of six new HDW Type 212CD submarines, as a new generation of the Type 212A. The design of the Type 212A submarine, which has proven itself in service with the German and Italian navies, will be further developed with the integration of advanced technologies to expand the U212 family in Europe. This project is another important step towards deepening and expanding European cooperation in the field of defence.

Construction of the first boat will begin in 2023. Delivery of the first submarine for the Norwegian Navy is expected for 2029, while delivery of the two boats for the German Navy is scheduled for 2032 and 2034. In preparation for the order, ThyssenKrupp has already initiated investments of around €250 million in 2019. The aim is to further develop ThyssenKrupp Marine Systems at the Kiel location into an international centre of competence for the construction of conventional submarines. Construction of a new shipbuilding hall has already begun, and progress is clearly visible at the shipyard site. With the order now placed in the Norwegian-German strategic cooperation project U212CD, thyssenkrupp Marine Systems will consolidate its partnership with Kongsberg Defence & Aerospace (KDA), which has already existed since 2017, and expand its value-adding industrial partnerships in Norway and Germany.

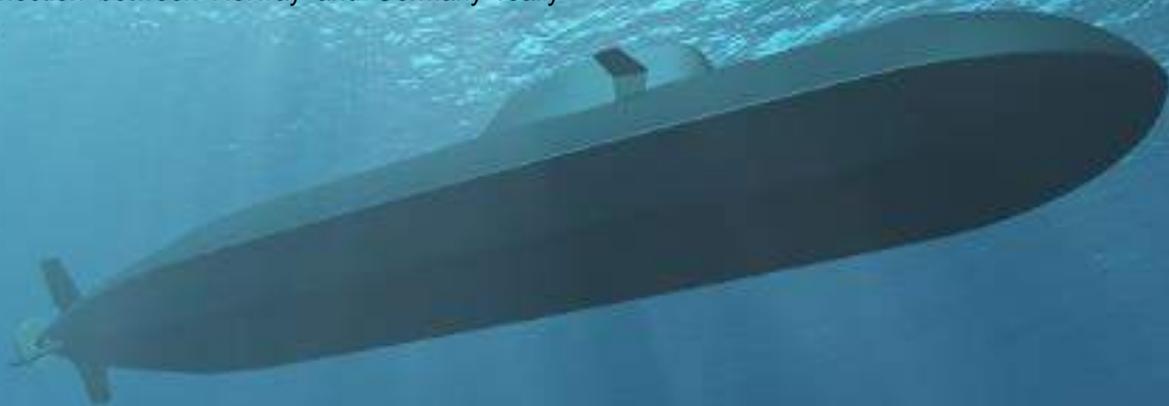
212CD | Submarine design – Main data

Displacement (surface): ~ 2,500 m³

Length overall: ~ 73 m

Beam: ~ 10 m

Height: ~ 13 m © DBDC



SCHIEBEL CAMCOPTER® S-100 COMPLETES SUCCESSFUL TRIALS FOR THE HELLENIC NAVY

Schiebel demonstrated the outstanding capabilities of its Unmanned Air System (UAS) CAMCOPTER® S-100 to the Hellenic Navy. Stationed on board of the Elli-Class Frigate Aigaion (F-460) in the Mediterranean Sea west of Crete, the S-100 showcased in a one-week trial its range, endurance and speed, as well as its maritime surveillance and detection capabilities, to the Hellenic Navy. For the demonstration flights, the CAMCOPTER® S-100 was equipped with a Trakka TC-300 EO/IR sensor and a Shine Micro Automatic Identification System (AIS) receiver. The scenarios alternated day and night take-offs and landings. They included cooperation with other Hellenic Navy vessels, maritime traffic monitoring and coast observation. Hans Georg Schiebel, Chairman of the Schiebel Group, said: "Our CAMCOPTER® S-100 is the only UAV of its class with extensive flight experience. It is operated by 14 navies worldwide and we are very proud that we had the chance to successfully showcase our system to the Hellenic Navy."

Schiebel's CAMCOPTER® S-100 Unmanned Air System (UAS) is an operationally proven capability for military and civilian applications. The Vertical Takeoff and Landing (VTOL) UAS requires no prepared area or supporting equipment to enable launch and recovery. It operates by day and by night, under adverse weather conditions, with a beyond line-of-sight capability out to 200 km / 108 nm, over land and sea. Its carbon fibre and titanium fuselage provide capacity for a wide range of payload/endurance combinations up to a service ceiling of 5,500 m / 18,000 ft. In a typical configuration, the CAMCOPTER® S-100 carries a 34-kg / 75-lbs payload up to 10 hours and is powered with AVGas or JP-5 heavy fuel. High-definition payload imagery is transmitted to the control station in real time. In addition to its standard GPS waypoint or manual navigation, the S-100 can successfully operate in environments where GPS is not available, with missions planned and controlled via a simple point-and click graphical user interface. The high-tech unmanned helicopter is backed by Schiebel's excellent customer support and training services.

Founded 1951 in Vienna, the globally operating Schiebel Group focuses on the development, testing and production of state-of-the-art mine detection equipment and the revolutionary CAMCOPTER® S-100 Unmanned Air System (UAS). Certified to meet AS/EN 9100 standards, Schiebel has built an international reputation for producing quality defence and humanitarian products, which are backed by exceptional after-sales service and support. With headquarters in Vienna (Austria), Schiebel now maintains production facilities in Wiener Neustadt (Austria) and Abu Dhabi (UAE), as well as offices in Washington, DC (USA) and Shoalhaven (Australia).

© Schiebel



Babcock International secures contract to support the Irish Naval Service



© Babcock International

Babcock International, the aerospace, defence and security company, has been awarded a contract to deliver the installation of a variable speed drive system for the central cooling system on board the Irish Navy's P60 Samuel Beckett Class.

The variable speed drive system was first installed on the central cooling system of the fourth Offshore Patrol Vessel, LÉ George Bernard Shaw (P64), at time of build, enabling the vessel to use a variety of power outputs depending on the conditions and requirements.

The system has proven to be very successful, with the Irish Naval Service requesting it to be installed across the class to save power, fuel and cost, whilst providing a more environmentally friendly running option across the class.

The contract will see Babcock working alongside a range of suppliers to complete the work package for

the Irish Naval Service, which will include all aspects of the project from design to engineering assurance. Gary Simpson, Managing Director, Babcock's Marine Support business, said: "We're pleased to continue our close working relationship with the Irish Naval Service and particularly to support this environmentally efficient system.

"We are immensely proud of the work we carried out to build the P60 Samuel Beckett Class and welcome the opportunity to continue supporting these fantastic Offshore Patrol Vessels and the Irish Naval Service.

"Our ability to support global navies is founded on collaboration with a real focus on our customers' operational success."

Captain Roberts, Officer Commanding Naval Support Command, said: "The installation of the variable speed drive upgrades on the P60 Samuel Beckett Class demonstrates our climate change objectives, following the Government's Climate Action Plan, in action.

Babcock International have proven know-how to deliver this project, having already installed the system on LÉ George Bernard Shaw, and we look forward to working alongside them."

Work will commence later this year in Ireland at Haulbowline, Co. Cork.

Babcock Team 31 has been contracted by the UK Ministry of Defence (MOD) to deliver five Type 31 frigates.

The contract, which was awarded in November 2019, signalled another decade of ship-build activity for the historic dockyard at Rosyth.

Building on the unique experience and success of the Aircraft Carrier Alliance, Babcock has brought together a highly experienced and integrated project team spanning several regions of the UK, to meet the challenging Type 31 programme.

This pathfinder programme, as described by the MOD, is the first of its kind to be delivered under the new National Shipbuilding Strategy.

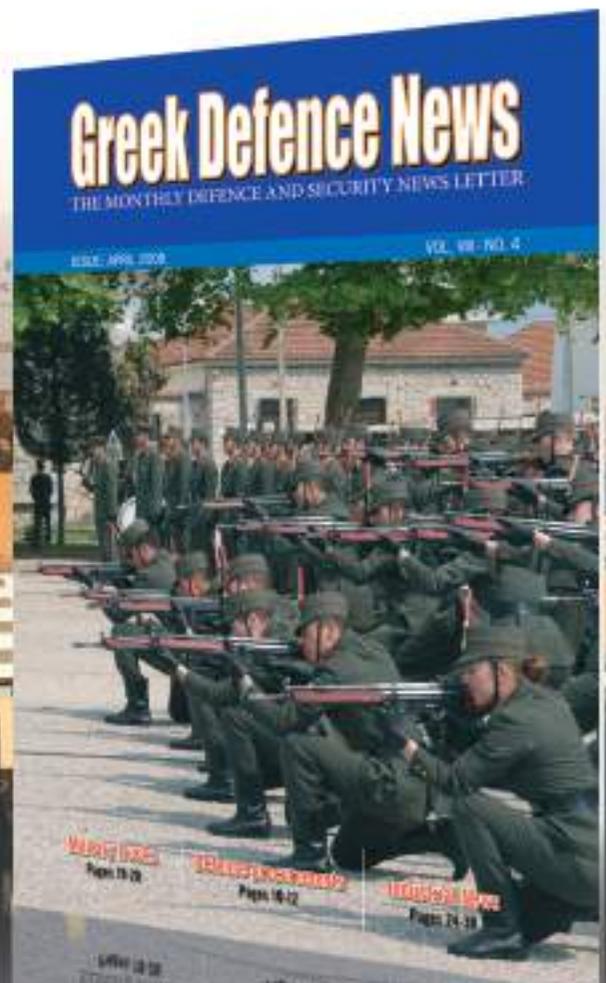
Re-energising the UKs' maritime capability through modern UK ship design and build practices, the Type 31 programme will also support technology transfer into the UK through the command system and drive British shipbuilding expertise to match the Royal Navy's pedigree as a world leader in naval platforms.

Type 31 will be at the heart of the Royal Navy's surface fleet, deterring aggression and maintaining the security of the UK's interests. They will work alongside the UK's Allies to deliver a warship presence across the globe and enable a forward naval presence.



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International Defence Publications & Events





Enhancing Mission Effectiveness

INTRACOM DEFENSE (IDE) is a highly acclaimed Defense Systems Company in Greece, with an outstanding record of participation in domestic programs and exports to quality-driven international customers.

IDE utilizes high-end technologies in the design and development of advanced products in the areas of Missile Electronics, Tactical IP Communications, Integrated C4I Systems, Surveillance, Hybrid Electric Power Systems, and Unmanned Systems. The Company retains its international recognition through the long standing participation in European and NATO new technology development programs. Utilizing advanced production capabilities and large-scale project management know-how, IDE is a key player in the high technology sector of the Hellenic Defense Industry.



www.intracomdefense.com