

# HELLENIC AIRFORCE IN 2021

The country's geographical morphology renders the Air Power and, consequently the Hellenic Air Force

as the spearhead of our military power. Greece into adopting a Strategic Doctrine of DEFENDING-DETECTING nature. DETECTING constitutes the main axis of our defence concept in conjunction with, confronting threats, in combination with the tensions' systematic political de-escalation. Also, in the context of inter-service activities, the HAF contributes in the development of a defence mechanism capable of supporting National Defence Policy and in safeguarding our sovereign rights.

and maintenance, the HAF could react immediately to conduct intense and long-lasting air operations, in order to acquire and maintain dead level control of Greece FIR, in order to safeguard the country's air defence and provide air protection. Also, it is in position to support the other Services of the country's Armed Forces. In addition, in the context of the country's international obligations, the HAF offers personnel and assets in inter-alliance exercises, peacekeeping and humanitarian aid missions, thus actively contributing to the Greek foreign policy towards maintaining International Peace and Security. Moreover, during peacetime, HAF carries out significant work by conducting social welfare operations (firefighting, air evacuations, etc) aiming at supporting the political sector in confronting emergency situations. Unambiguously, Greece's Air Power seems to be a major mean of its foreign policy toward on security and defence, and the ability to operate as a factor of deterring, through its ability to operate as a means of deterrence, coercion, denial and destruction.

The Chief of the Hellenic Air Force General Staff (HAFGS) is responsible for the organization, training and equipping of all military and civilian personnel of the Hellenic Air Force, serving in Greece and abroad. As a member of the Joint Chiefs of Staff Council, the General and other service Chiefs function as military advisors to the Minister of National Defence. The mission of the

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## SHOW DAILY FOCUS ON DEFEA 2021

Tactical Air Force during peacetime, is the preparation and training of the Combat Units which are under it, the undertaking of missions at any moment and the co-operation with the other branches of the Armed Forces. During wartime it is the administration and coordination of the operations among the Units and the co-operation with the corresponding Major Formations of the Armed Forces to carry out these operations.

**Greece equips itself with the RAFALE**

On 25 January 2021, in the premises of the Greek Ministry of National Defence, Theodoros Lagios, General Director of Armament and Investments of the Greek MOD, and Eric Trappier, Chairman and CEO of Dassault Aviation, signed a contract, worth of 1,9 million euro for the acquisition of 18 Rafale aircraft for the Hellenic Air Force, as well as a contract worth of 400.000 million euro for the logistical support of the fleet. This signing ceremony was held in Athens in the presence of Mrs. Florence Parly, Minister of the Armed Forces of France, and Mr. Nikolaos Panagiotopoulos, Minister of National Defense of Greece.

As a European country and member of NATO, Greece is a major strategic partner of France. Dassault Aviation is honored by the Greek government's decision, that extends an uninterrupted partnership for 45 years. The order for 18 Rafale includes 12 Rafale recently in service with the French Air Force and 6 new Rafale produced at Dassault Aviation plants. To meet the urgent need of the Greek authorities, the deliveries of aircraft will begin in the summer of 2021 and will be spread over two years. The logistic support contract will support the Hellenic Air Force Rafale's air activity over four and a half years, maintaining the availability of equipment and systems at the highest level.

The arrival of the Rafale in Greece highlights the quality of the strategic relationship between Greece and France and the continuation of more than forty-five years of solid partnership with Dassault Aviation and its industrial partners Thales and Safran. As with the Mirage F1 in 1974, the Mirage 2000 in 1985 and finally the Mirage 2000-5 in 2000, the Rafale is an opportunity to launch new cooperation's with the Greek aerospace industry.

"Greece is a leading European partner, a major member of NATO and a special partner of France, with which Dassault Aviation has stood steadfastly by its side for more than 45 years. The continuity of our presence in Greece, even in the most difficult times, is a token of the quality of this relationship. That is why I am proud and happy to sign today this

contract, which symbolizes the extension of the commitment of Dassault Aviation towards Greece since 1974. I would like to thank the Greek authorities for their renewed confidence in us. I assure them of our total mobilization to achieve the objectives that are defined", said Eric Trappier, Chairman and CEO of Dassault Aviation.

**MBDA to arm Hellenic Air Force's new Rafale fighter jets**

The new aircrafts' weapons will benefit from the strong commonality with those from the Mirage 2000s and Mirage 2000-5s currently in service in the Hellenic Air Force. Like these, the Rafales will be armed with SCALP cruise missiles, AM39 Exocet anti-ship missiles and MICA multi-mission air-to-air missiles. Additionally, MBDA will also supply Meteor beyond visual range air-to-air missiles.

Eric Béranger, CEO of MBDA, said: "The signing of this agreement turns a new page in our relationship with Greece, which we have had for more than half a century. The country was the very first customer of the Exocet missile in 1968, showing great confidence in it and in our predecessor companies. This confidence has been renewed over the years and is being renewed again today. It is our duty to do everything we can in order to continue delivering on this confidence into tomorrow."

MBDA is the only European group capable of designing and producing missiles and missile systems that correspond to the full range of current and future operational needs of the three-armed forces (land, sea and air).

**New training center for Hellenic Air Force in Kalamata**

On April 18, 2021, Elbit Systems Ltd. announced, further to the Company's announcement of January 5, 2021, that it was awarded a contract valued at approximately \$1.65 billion (approximately €1.375 billion) for the establishment and operation of the International Flight Training Center of the Hellenic Air Force, as part of an agreement between the Israeli Ministry of Defense and the Hellenic Ministry of National Defense.

The contract will be performed over a period of approximately 20 years and will include price indexation. Under the contract, Elbit Systems will supply new M-346 training aircraft and will maintain the entire training fleet, comprised of dozens of M-346 and T-6 training aircraft for a period of approximately 20 years. In addition, the Company will provide its latest advanced Embedded Virtual Avionics (EVA) onboard the training aircraft, deliver networked flight simulators and an array of Ground-

## SHOW DAILY FOCUS ON DEFEA 2021

Based Training Stations (GBTS) as well as a command-and-control system to enable efficient management of the flight training operation.

Bezhalé (Butzi) Machlis, President and CEO of Elbit Systems, said: "We are honored to have been awarded this contract to provide such an important capability to the Hellenic Air Force. This contract award attests to the leading position we hold in the area of pilot's training solutions, providing tested know-how and proven technologies that improve operational readiness while reducing costs."

**Support of Mirage 2000-5**

Hellenic Parliament approved Ministry of Defence request regarding the funding for the support of Mirage 2000-5, a ceiling of € 260 million over seven years. Speaking in the Hellenic Parliament, Defence Minister Panagiotopoulos said that this approval endorses the three draft framework agreements for the subsequent support of Mirage 2005 aircraft between General Directorate for Defence Investments and Armament (GDIA) and the three French manufacturing companies Dassault, Thales and Safran. There was a problem that unfortunately exists from 2012, but also before. Mirage 2000-5 aircraft support, for which the specific operational advantage are well known, after many extensions expired in 2012, but since then never renewed. A new follow-up contract was required under the new legislative framework. The negotiations lasted almost throughout 2018, until finally, and especially after his visit to Paris and the direct talks with his French counterpart, they agreed that they had to end this long-standing affair. They agreed that the Mirage is one of the Hellenic Air Force top priorities. Defence Minister also said that the French may have been thinking that if this will be resolved, a future window for Rafale may remain open or we may come in an agreement with the frigates.

We agreed that the Mirage had to be launched because we required it to fly again with the correct availability. To avoid misunderstanding, a capable part of the Mirage fleet is currently operational and in high readiness. This may begin next month to let us know that in four, five, six months from now, a sufficient percentage of the 44 Mirage 2000 and 2000-5 fleets will be available for Air Force needs, with whatever that entails.

This is how we came to the framework agreements. Funding for this program, a ceiling of € 260 million over seven years, is already approved. We had a case, and we told the French that Greece has the funds, the spare parts had been found and we had to agree. As you understand, we have agreed that funding for 2019 to 2021 is 30 million per year as it has been already announced by the Ministry of Finance.

**F-16V Viper upgrade**

The first of 84 Greek Lockheed Martin F-16 fighters to be upgraded to the F-16V Viper standard took to the skies for the first time on January 17 and is now in Texas and at the Lockheed Martin Aero facility. The upgrade to the Viper version is a collaboration between the Hellenic Defense Industry (EAB) and Lockheed Martin. In Texas, all the necessary ground and flight tests will be performed, including simulation in special cabins, to determine that the aircraft meets all the necessary specifications.

The F-16V had been upgraded at the Tanagra facility of Hellenic Aerospace Industry (HAI), which is to carry out the modifications to the fleet in a program that was approved by the U.S. government in October 2017. The value is estimated to reach around \$1.5 billion. The first airframe, carrying the serial number 005, was originally delivered in 2009 as an F-16C Block 52+ with Pratt & Whitney F100-PW-229 engine as part of the Peace Xenia IV sale.

Greece acquired a total of 90 Block 52/52+ aircraft and the survivors are the subject of the upgrade. The Hellenic Air Force (HAF) also received 80 Block 30/50 aircraft powered by the General Electric F110, but they are not part of the F-16V program.

After modernization, the aircraft is now an F-16V in Block 72 configuration, the "2" denoting its P&W powerplant. The key element of the modernization is the installation of the Northrop Grumman APG-83 Scalable Agile Beam Radar (SABR), a sensor with an active electronically scanned array (AESA).

The cockpit has a new center pedestal display and is compatible with the Joint Helmet-Mounted Cueing System (JHMCS) II.

Other improvements include a new mission computer, an automatic ground collision avoidance system, enhanced electronic warfare capabilities, Link 16 datalink, and an advanced identification friend or foe interrogator system.

The next three F-16Vs are also expected to go to the U.S. to join the test fleet. A successful conclusion of the certification process will result in approval by Lockheed Martin for HAI to proceed with the remainder of the upgrade program, which is expected to be completed by June 2027.



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## UNDER CONTRACT TO EMSA SCHIEBEL CAMCOPTER® S-100 SUPPORTS FINNISH, ESTONIAN AND SWEDISH COAST GUARDS

The Finnish Border Guard is once again operating the CAMCOPTER® S-100 for implementing coast guard functions in the Baltic Sea. The Remotely Piloted Aircraft System (RPAS) service is offered by the European Maritime Safety Agency (EMSA). Based at a coast guard station in Hanko, Finland, the CAMCOPTER® S-100 is supporting the Finnish authorities in carrying out Coast Guard functions, such as maritime border surveillance, search and rescue, monitoring and surveillance, ship and port security, vessel traffic monitoring, environmental protection and response, ship casualty assistance, as well as accident and disaster response. The information collected in the Baltic Sea from the on-board RPAS system is shared in parallel with multiple Member States, allowing for a common maritime picture and more comprehensive coordination. The operations will continue until end of July. The S-100 will execute these tasks equipped with an L3 Wescam Electro-Optical / Infra-Red (EO/IR) camera gimbal, an Overwatch Imaging PT-8 Oceanwatch, a Becker Avionics BD406 Emergency Beacon Locator and an Automatic Identification System (AIS) receiver. This deployment comes on top of two other CAMCOPTER® S-100 operations for EMSA currently being carried out in Estonia and Romania conducting maritime surveillance. It is also the third deployment for the Finnish Border Guard, after a trial in 2019.

Hans Georg Schiebel, Chairman of the Schiebel Group, said: "Another great example of enhanced maritime surveillance and information sharing capabilities of our CAMCOPTER® S-100. Since contract begin, we have conducted operations all over Europe and are proud to play such an important role in EMSA's services for its member states."

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'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 provides 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.

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## MBDA's CAMM-ER successfully completes major milestone

MBDA has successfully completed a firing of the CAMM-ER air defence missile against a manoeuvring target, confirming the excellent capability of the CAMM family system.

The trial took place at an Italian firing range. CAMM-ER is the extended range member of the new-generation CAMM air defence family of systems.

All members of the CAMM family share the same cutting-edge active radar seeker and soft-launch system, with CAMM-ER featuring a larger rocket motor designed by AVIO to provide extended range out beyond 40 km.

CAMM-ER was designed to replace the Aspide munition in the Medium Advanced Air Defence System (MAADS) of the Italian Air Force and the GRIFO air defence system of the Italian Army. CAMM-ER is the missile that will be used in the Albatros NG system, which provides an optimized naval based air defence (NBAD) solution to enhance the defence capabilities of naval fleets.

CAMM-ER is the Common Anti-air Modular Missile Extended Range, is from the CAMM family of next generation air defence missiles. Incorporating advanced technologies, CAMM-ER provides complete protection against all known and projected air targets. CAMM-ER has an active RF seeker that provides true all-weather performance with excellent clutter rejection capabilities. There is no need for dedicated complex and high-cost fire control/illumination radars.

CAMM-ER offers land-based forces a highly effective and easily deployable, medium range air defence system, as part of the Enhanced Modular Air Defence Solutions (EMADS), capable of operating as either a standalone unit or integrated within a battlespace network. The use of third-party target information from the wider battlespace network allows the system to engage targets that are non-line-of-sight from the local launcher or sensors.

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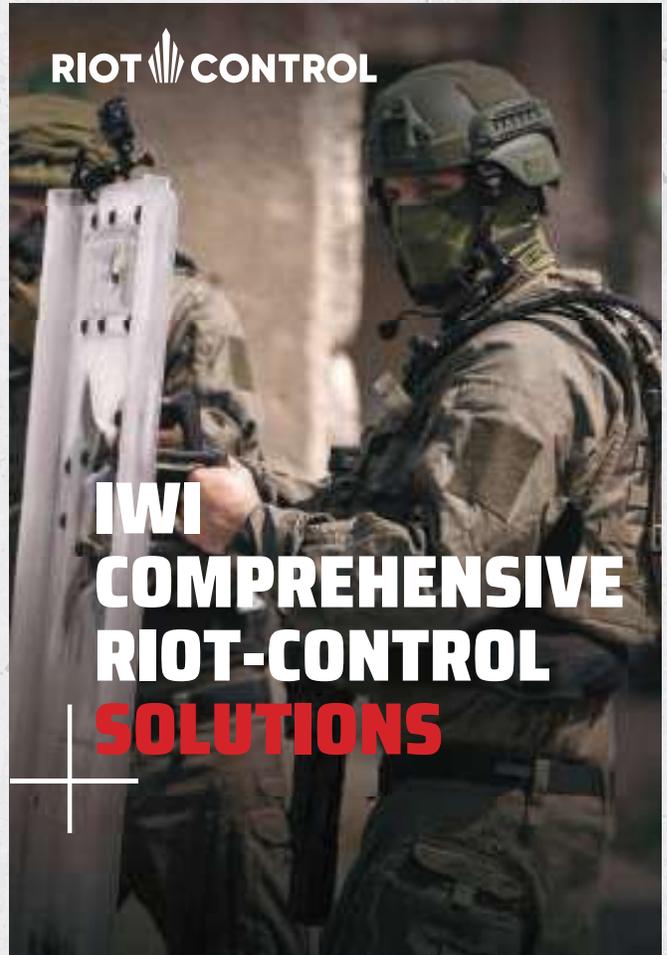


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## Scatterable-mine detect and displace capability allows any military vehicle to overcome rising threat

With a focus on organic and scalable battlefield mobility, Pearson Engineering has released its latest product developments Threat-Sense and Threat-Pathway. Designed to provide military vehicles with capability to both detect and displace scatterable-mines, the unique systems have been developed to overcome the fatal challenges to mobility which were seen only a couple of years ago in the Donbass region of Ukraine and which present a rising threat to all military vehicles, both armoured and non-armoured. The systems are designed to be used together, or separately, dependent on existing capabilities and requirements from different nations.

Threat-Sense, the detect component, uses artificial intelligence to identify surface laid threats. Deep learning algorithms developed by the company's team of software engineers can detect anti-tank and anti-personnel mines and indicate to operators in varying environmental conditions where threats are present. Crucially, by analysing the insights provided by the system, the most viable route out of the threat can be found. The fully passive systems simultaneously analyses video streams in real-time from visual and thermal cameras mounted on the vehicle. If any threats from a pre-programmed and trainable library are detected in

either the visible or infrared spectrums, they are highlighted on a screen fitted within the vehicle and an audible warning is sounded. The Threat-Sense system serves as a tool to reduce the cognitive effort required of the operator without overriding human decision making, ultimately allowing them to take on a broader range of tasks to maintain battlefield advantage.

Where no safe route is possible, Threat-Pathway, the displace component of the system, can be rapidly deployed from under-armour. Whilst more akin to a product from Pearson Engineering's existing range of proven front-end equipment (FEE), Threat-Pathway has been developed to be carried by any military vehicle, rather than a dedicated engineer variant. Without impacting vehicle mobility, the new capability allows self-extraction from air delivered scatterable mines and supports freedom of manoeuvre when a minefield is encountered. At approximately 250kg for a typical IAV, Threat-Pathway is designed to be used in an urgent scenario where mobility has been stalled and independent manoeuvre is the only option. The equipment can be removed after use and is considered a life-saving consumable that can be easily replaced. With all military vehicles able to carry the system, it also serves to reduce the adversary's expectation of how armed forces might be fixed by scatterable mine attacks. Further, the self-extraction capability will reduce reliance on engineer capable platforms and units and hence improve the doctrine of 'march divided and fight united'. Threat-Pathway has been designed to provide full width clearance including at full steering lock and can follow ground contours in undulating terrain



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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.

## **BlueBird Aero Systems, Part of Israel Aerospace Industries' Eco-System, Completes Delivery of 100 VTOL UAVs to a European Customer**

**The systems were delivered as part of a transaction worth tens of millions of dollars (USD) for over 150 Vertical Takeoff and Landing UAVs**

BlueBird Aero Systems, partially owned (50% of shares) by Israel Aerospace Industries (IAI), completed the delivery of 100 WanderB-VTOL UAVs to a European customer. The Vertical Takeoff and Landing (VTOL) UAVs are part of a transaction involving over 150 WanderB-VTOL and ThunderB-VTOL UAVs worth tens of millions of dollars (USD). This is the world's largest number of VTOL UAVs delivered to any customer at one time, and was completed within the agreed timetable despite COVID-19 conditions.

The transaction reflects a globally emerging trend of VTOL UAVs, which provide important benefits for land and maritime applications as they combine the advantages of a fixed wing UAV (long range, long endurance, high speed, wind independency, large area coverage, etc.) with the advantages of a multi-copter (ability to take off and land in confined areas, accurate, safe and damage-free landing, etc.).

IAI's 50% acquisition of BlueBird Aero Systems, which was recently approved by Israel's government, is tapping into the potential of this emerging trend. Over the past few years, BlueBird developed several advanced VTOL platforms. The asset and capability combination of IAI and BlueBird is expected to yield additional breakthrough operational solutions on the market.

IAI EVP and General Manager of the Military Aircraft Division and incoming Chairman of the Board at BlueBird Moshe Levy: "I am excited to celebrate this important milestone. BlueBird is delivering a product providing a unique solution to the customer's operational challenges. I am confident BlueBird with IAI's collaboration will yield future transactions and lead to the development of more sophisticated tactical VTOL UAV systems."

BlueBird's Founder and CEO, Ronen Nadir: "BlueBird's VTOL systems provide vital intelligence and situational awareness in real-time to the end-user's infantry, armored units, artillery corps and special forces, serving as their 'eye in the sky,' effectively handling the challenged of the modern battlefield.

The systems have been tested in extreme environmental conditions and comply with the end user's operational needs, providing them with significant operational advantages.

Once again, our leadership in cutting edge VTOL solutions, is setting the stage for next generation tactical UAVs."



## NHIndustries chooses Thales's TopOwl helmet system for special forces NH90 pilots

With its high-definition digital display, the new-generation TopOwl Digital Display system enables helicopter pilots to fly in all degraded visual environments.

The helmet-mounted sight and display system has been developed and refined in partnership with the French defence procurement agency (DGA) and operational personnel over the last 20 years, and is now the most advanced and capable solution in its class.

With its customised helmet-fit system, TopOwl is a key asset for pilots and a decisive factor in ensuring mission success. NHIndustries has chosen the new-generation TopOwl Digital Display helmet from Thales for the special forces variant of the NH90 helicopter. This variant has been developed at the request of the French defence procurement agency (DGA) to meet the requirements of France's special forces, and is also available to partner countries and other NH90 customers. This digital generation of Thales's TopOwl helmet system uses augmented reality to enhance the operational capabilities of combat helicopter pilots, especially when flying in highly degraded visual environments. TopOwl has also been selected for the Standard 3 upgrade of the Tiger combat helicopter being developed jointly by France, Germany and Spain.

Special forces units are specially trained to gather intelligence and operate behind enemy lines. The upgrades to the NH90 for special forces significantly improve mission capabilities and position the new variant as one of the highest-performance tactical transport helicopters in the world, especially for extreme environmental conditions such as brownout, whiteout, fog and dark night operations.

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## RX-3plus The Hellenic Tactical Unmanned System for ISR Operations

In the frame of DEFEA 2021 International Defense Exhibiton, Intracom Defense-IDE presents the RX-3plus system, a Tactical Remotely Piloted Aircraft System (TRPAS), targeted at performing Intelligence-Surveillance-Reconnaissance (ISR) missions with advanced autonomy through the integration of several innovative technologies and concepts. The system comprises of a fixed-wing, Tactical Unmanned Aerial Vehicle (UAV) and a Ground Control Station (GCS).

The main features of RX-3plus are:

- **The innovative Blended-Wing Body (BWB) layout** which offers a considerable increase in aerodynamic efficiency when compared to traditional configurations, translating to less fuel consumption, thus higher endurance and improved payload capacity.
- The **multiple ISR sensors** that RX-3plus is equipped with, coupled with **state-of-the-art, Artificial Intelligence (AI)-based, on-board sensor data processing capabilities** for target detection, recognition, identification and classification. AI-based techniques are used for situational awareness and autonomy to minimize the workload and maximize the efficiency of the operator.
- Its **robust and field-proven avionics**, engineered with emphasis on safety, reliability and operation in GNSS-denied environments. The avionics consist of a triple-redundant Flight Control System (FCS), a navigation system, associated peripherals and instruments necessary for flight as well as safety equipment.
- The RX-3plus GCS **Cyber-security** and **versatility**, accommodating the needs of all required mission profiles.
- The RX-3plus **long-range, robust, ad-hoc radio communication systems**, which provide high-rate COMSEC-enabled payload data downlink capability, a sensor telemetry downlink, a command uplink for payload control, as well as video and telemetry broadcast to forces in the field.

The main operational capabilities of the RX-3plus system are equivalent of those of a MALE aircraft at much lower cost and size, due to the





rapid technological progress made during the last few years, leading to the minimization of the size, weight and power consumption of the necessary electronic subsystems. Size and cost reductions as well as increased endurance, address the important need of EU Member States for **persistent ISR** in a very competitive package.

RX-3plus has been specifically designed to facilitate **collaborative mission execution** in the form of **teaming and swarming** among unmanned assets, since the employed communication systems support Flying Ad-hoc Networking topologies (FANETs). These capabilities open up new possibilities for ISR and combat missions. In this scenario, the RX-3plus UAV provides wide-area ISR services, spots areas of interest and high-quality intelligence to personnel to organize special operations. It can also be used to enhance the communication range of other unmanned assets, providing local coverage down to ground level.



The RX-3plus has been conceived and engineered to become the **next generation TRPAS**, with the aim to:

- Provide a lower cost, alternative to MALE aircraft.
- Incorporate technological advances so as to gain an advantage compared to previous designs.
- Provide a novel autonomy framework, enabling collaborative ISR missions while minimizing operator workload.
- Be easily maintainable, transportable and deployable.

These advantages are **specifically significant for Greece** and, in general, the Eastern Mediterranean region.

The RX-3plus is derived from the DELAER research project and is a step forward as a TRPAS tailored for ISR missions. The DELAER project is funded by the General Secretariat for Research and Innovation (GSRI). The project is implemented by a Consortium consisting of the Aristotle University of Thessaloniki (Coordinator), IDE and CFT.



## SK Group Presents Its Portfolio of Advanced Solutions for Defense and Law Enforcement Authorities

Solutions range from IWI's small arms to Meprolight's electro-optical sights and the recently launched – Camero's groundbreaking Xaver™ Long Range system

**SK Group** - a privately held technology and innovation holding company specializing in global frontline defense, law enforcement solutions, marine infrastructure and property development, will present for the first time at DEFEA its entire portfolio of advanced systems.

Solutions range from IWI's (Israel Weapon Industries) small arms to Meprolight's electro-optical sights and Camero's groundbreaking Xaver™ Long Range system.

According to Mr. Ronen Hamudot, SK Group and IWI's VP Marketing and Sales, "This is the first time the SK Group will be exhibiting at DEFEA, introducing its various solutions to the European market. Our extended offering, as displayed at the show, meets the challenges military forces and law enforcement agencies in regions are facing. "SK Group has a vast experience in knowhow technology transfer and cooperation with various industries and governments around the world. We are open to create new partnerships and local support" Hamudot adds.

**IWI - Israel Weapon Industries**, is a leader in the production of combat-proven small arms for law enforcement agencies, governments, and armies around the world. The company will present its 7.62X51mm caliber IWI TAVOR-7, a member of the successful TAVOR Bullpup Rifle family, which was developed in close cooperation with the Israel Defense Forces (IDF), based on lessons learned from actual combat situations. The IWI TAVOR-7 enables users to operate in a wide variety of scenarios at short and medium range with enhanced firepower – efficiently, safely and easily, with minimal maintenance.



The TAVOR-7 is a fully ambidextrous platform on which the ejection side and the charging handle can be switched quickly and easily from side to side by the user. The ambidextrous features include: safety lever, magazine release, and bolt catch similar to the X95. The IWI TAVOR-7 also includes an M-LOK fore-end (at 3 and 9 o'clock) as well as MIL-STD 1913 Picatinny rail at the 6 o'clock position, to allow the use of multiple devices and accessories. The rifle's body is built from high-strength, impact-modified polymer, and has a hammer-forged, chrome-lined, free-floating barrel for enhanced accuracy and life cycle.

Additional features include a short stroke gas piston with a 4-position variable gas regulator, (including an OFF position – a unique feature designed for special operation needs), a rotating bolt system that ensures maximum safety for the user, and a pistol grip that can be changed or modified. The IWI TAVOR 7 enables 100% interchangeability, reducing maintenance costs. It is available in four colors: Gray, OD Green, Black, and Flat Dark Earth, with replaceable barrels available in three lengths – 16.5" (419mm), 17" (432 mm) and 20" (508 mm) and a weight (without a magazine) of 4.4-4.5 Kg, depends of configuration.

**Meprolight (1990) Ltd.** - a leading manufacturer of optical & electro-optical systems, thermal and night vision equipment, and self-illuminated sights for military, law enforcement and civilian applications will introduce its recently launched MEPRO O2 sight. The MEPRO O2 is light weight (approx. 280g), and includes a built-in light sensor and automatic

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brightness control system that enables clear visibility of the reticle in any lighting conditions - a significant advantage for easy and efficient target acquisition.

The MEPRO O2 sight features non-reflective optics without light signature toward the target, for enhanced force protection; a combination of an integral motion sensor and configurable sleep time of 4-8 hours, for power saving and extended operation; a new, improved, rugged MIL-SPEC mounting design and a protected three-button control keypad. The sight shall shortly be offered with a 5-segment reticle supporting multiple pre-set aiming patterns switchable at user-level; in addition to its existing advantages,

the cutting-edge multi-pattern MEPRO O2 version will support all tactical scenarios and allow the user to seamlessly transition between reticle configurations suitable for variable ammunition types such as 5.56, 300BLK subsonic, or 300BLK supersonic, as the mission requires.

**Camero-Tech**, a world leader and pioneer in developing, manufacturing and marketing of pulsed-based UWB micro-power radar 'Through Wall Imaging' systems will introduce for the first time its groundbreaking Xaver™ Long Range 80 system - a portable, high-performance ISR through-wall imaging system, offering forces maximum protection in the field. The XLR80 enables detection of live objects behind walls, at distances of more than 100 meters away. This new capability provides a breakthrough operational advantage in a hostile environment.

**SK Group** is the largest privately-held defense group in Israel, with facilities in the Israel, USA, Asia, Latin America and now in Europe at ELVO. SK is also engaged in real estate and property development. SK Group exports to more than 50 countries worldwide, and has experience in privatization, and transfer of technology, while investing in R&D and new technologies. SK Group includes IWI - a leading firearms manufacturer of small arms systems, Meprolight- a global force in electro-optic systems and laser solutions, Camero-Tech - a world leading pioneer in Sense-Through-The-Wall (STTW) solutions, Uni-Scope - with broad experience in development, production and sales of periscopes for armored vehicles, and more. SK's companies offer a powerful track record of technology, experience and excellence.



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## Arquus presents its tactical and logistics solutions at DEFEA 2021

European leader of land protected mobility, French company Arquus (formerly known as Renault Trucks Defense, Acmat and Panhard) will be present at the DEFEA exhibition in Athens, Greece, as an official sponsor. French expert of land protected mobility, Arquus is also a long-term partner for the Greek Army, having supplied more than 240 VBLs to Greece, the largest fleet of VBLs in the world outside of France. The company will be exhibiting its vehicles, products and services for Greece, notably its workhorse for tactical missions, the VLRA tactical truck, and the Trapper light liaison vehicle, alongside a complete range of armored and non-armored vehicles ranging from light 4x4 to heavy 8x8 solutions. The company will also be presenting its solutions to upgrade the Greek VBLs, which could benefit from the upgrade program currently undertaken by Arquus for the French VBLs.

At DEFEA 2021, Arquus wishes to present the full range of its tactical and logistics solutions for Greece. The company is exhibiting its VLRA (Véhicule Léger de Reconnaissance et d'Appui – Reconnaissance and Support Light Vehicle), a robust, versatile, modular 4x4 vehicle, designed for high mobility and transport in the harshest conditions with minimal maintenance needs.

The VLRA is a 12-ton vehicle which can load up to 5-ton payloads or combat teams of up to 30 soldiers and 3 crewmen. More than 1,000 VLRA have already been produced, including the Bastion, Arquus' monocoque APC, which is also based on the VLRA's versatile chassis. The VLRA is a proud heir to the first-generation VLRA, which was a global success with more than 12,000 units produced for several units throughout the world, starting with the French Special Forces, the British SAS and the Irish Army Ranger Wing. Arquus will also be offering its new non-armored, 4x4, Trapper light liaison vehicle, selected by the French Ministry of the Armies under the VT4 denomination to equip the French Army, but also the Army of Air and Space and the Navy. A total of 4,380 vehicles will be delivered to France, 2,500 of which have already been produced. A specialized production line is dedicated to the VT4 program at Arquus' plant in Saint-Nazaire. The Trapper is a light, high-mobility vehicle designed for liaison and transport missions in low-threat zones. It can load up to 5 people or 4 fully combat-ready soldiers. To complement these vehicles, Arquus also presents models of the Fortress, its new flagship for high mobility and protection, and of the Scarabee, the company's new generation reconnaissance vehicle and very first hybrid-drive military vehicle in the world.

Arquus will also be discussing potential upgrades for the Greek Army's VBL fleets. Under the VBL Ultima program, French VBLs are currently being upgraded to the Ultima version, which includes a new, more powerful engine, reinforced suspensions for increased payload and road handling, as well as air conditioning. Such developments could be used for the Greek Army as well. Arquus will also be presenting its support and maintenance capabilities, including innovative solutions such as connected glasses for remote support, 3D-printing, increased and virtual reality, as well as deployable workshops, fleet audit solutions and training.



## Rafael's SPICE family of air-to-surface weapons for fighter platforms

The 21st century battlefield combines challenges of conventional warfare, surgical war on terror and localized operations. To support these requirements, air force buildup should aim for providing an adequate response and readiness for unknown threats.

While doctrines call for taking the battle into enemy territory, advanced surface-to-air (air defense) systems that protect high-value targets, have dramatically reduced operational flexibility, requiring fighter platforms to carry out attacks from standoff ranges in order to stay out of enemy danger zone, while acting precisely and instantly, so as to contain emerging incidents from evolving into strategic crises and avoid collateral damage.

A significant required capability which has evolved in recent years is to carry out missions in GPS-denied environments, due to the increasing use of GPS jamming and spoofing. This can be seen in many parts of the globe, as jammers have become very popular and available with state actors, but also used by terror organizations. This necessitates technologies that can overcome this challenge.

Rafael has taken a leading position in this domain, using advanced electro-optical scene-matching technology and the world's first Artificial Intelligence (AI), to enable Automatic Target Acquisition (ATA) and autonomous guidance of the weapon to its target, independent of GPS reception.

These technologies are part of Rafael's SPICE (Smart, Precise Impact and Cost-Effective) family air-to-ground weapons, in service with the Israeli air force. SPICE, can operate day and night, 24/7, under all-weather conditions, generating and striking targets at significant standoff ranges.

SPICE is released outside the threatened area and performs midcourse navigation autonomously. While approaching the target, SPICE's unique scene matching algorithm compares the target area electro-optical image received in real-time via the weapon seeker with mission reference intelligence data stored in the weapon computer memory. In the homing phase, the system locates the target pixel

using scene-matching technology and uses the electro optical tracker for target hit.

SPICE's seeker wide target area footprint coverage on ground for each mission, enables SPICE to overcome Target Location Error and GPS jamming and spoofing. SPICE's mission profile can be set to a specific attack azimuth, up to a U-Turn scenario, and required impact angle to suit the selected target profile, such as a steep dive angle for deep penetration.

Rafael's SPICE is capable of hitting and destroying targets with pinpoint accuracy of CEP better than 3 meters, at high attack volumes, dramatically avoiding and reducing collateral damage. Its mission-planning is enabled both on ground or in real-time in flight.

SPICE is an operational and combat-proven weapon on the Israeli Air Force's F-16 and F-15 and is in service with other leading international customers.

The SPICE family includes:

**SPICE-1000 kit** for 1000 lb. class general purpose or penetration warheads, such as MK-83 and RAP1000. The SPICE 1000 stand-off range is up to 120 kilometers.

**SPICE-2000 kit** for 2000 lb. class general purpose or penetration warheads, such as MK-84, RAP2000 and BLU-109. The SPICE 2000 stand-off range is up to 60 kilometers.

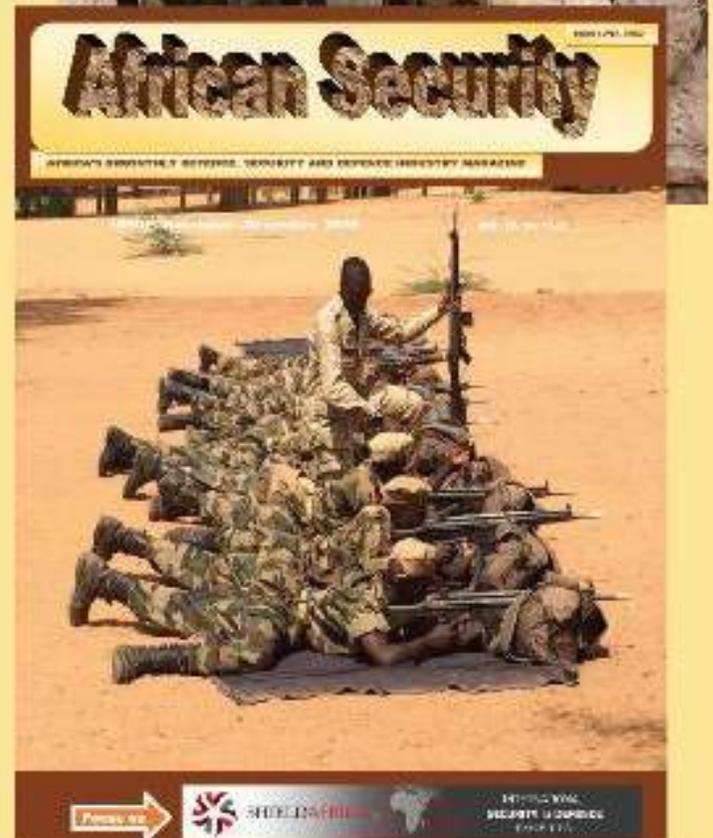
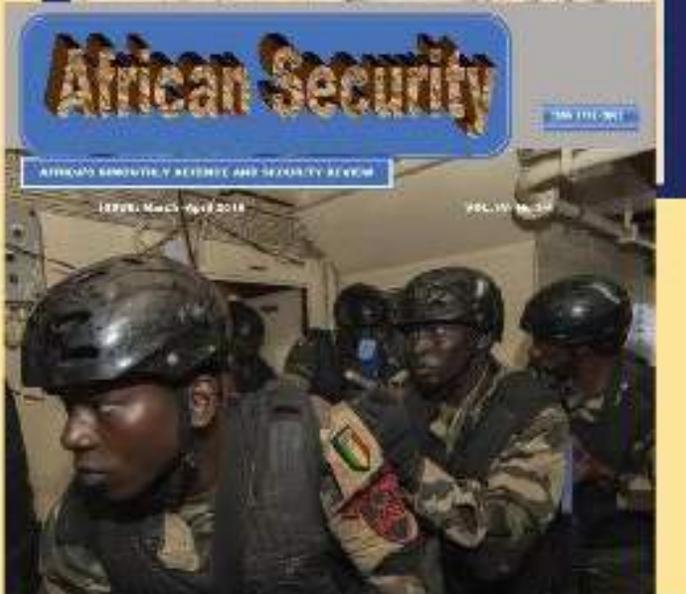
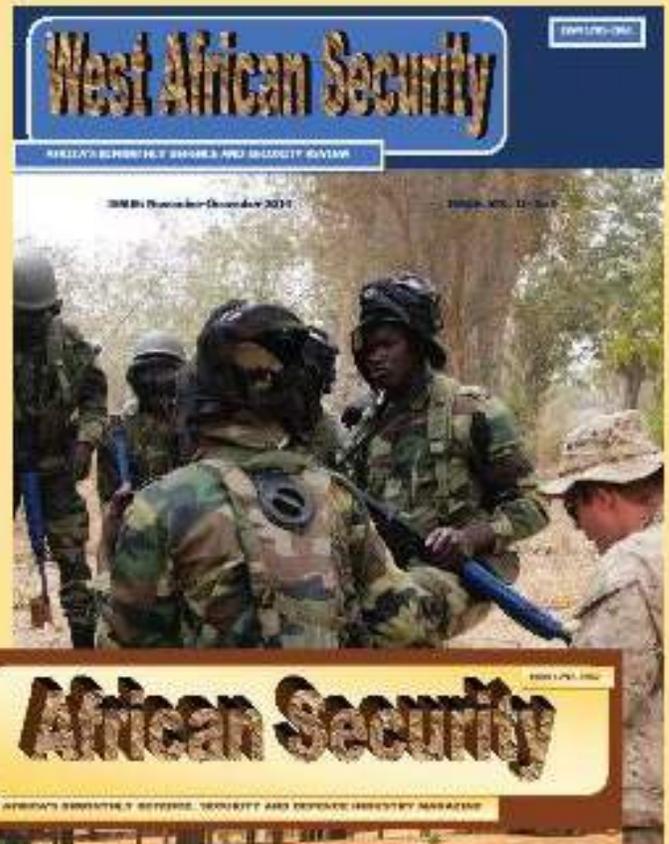
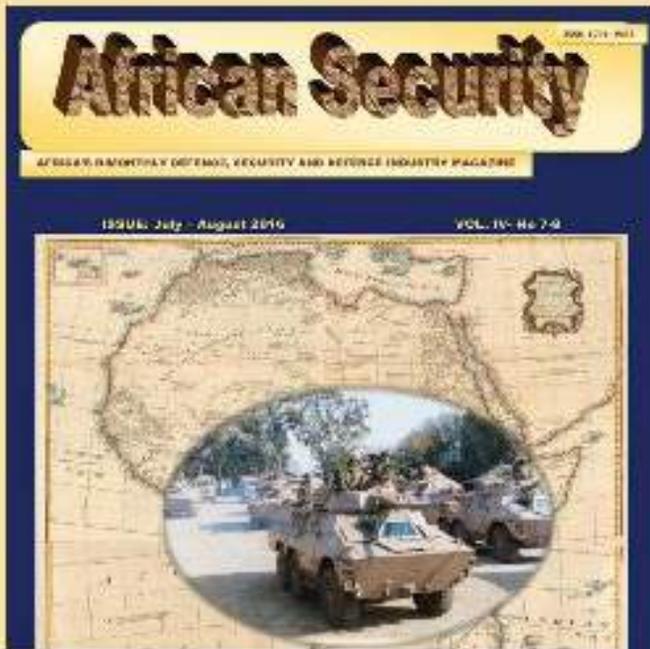
**SPICE-250** – the latest addition to the SPICE family. SPICE-250 is a unitary munition and can be equipped with either general purpose or penetration warheads. The SPICE 250 standoff range is up to 100 kilometers,

SPICE 2000 and SPICE 1000 were awarded with the highest defense prize by the president of Israel in 2008 and 2019 respectively.



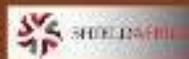
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# NSM

## Naval Strike Missile — Lethal, Reliable, Survivable



The Naval Strike Missile meets or exceeds the U.S. government's over-the-horizon requirements for survivability against high-end threats, has demonstrated lethality, is easy to upgrade, has long-range strike capability and is in the field today.

### Characteristics

- Fifth-generation strike missile enabling enhanced kill per shot ratios against well-defended targets
- High accuracy inertial navigation aided by GPS and LASER altimeter for terrain following and sea-skimming flight
- Imaging infrared seeker provides autonomous target recognition (ATR)
- 500 lb class warhead with a programmable intelligence multipurpose fuze
- Solid propellant rocket motor boost phase with JP-10 liquid-fueled turbo-jet sustained flight
- Mature capability upgrade plan in place to pace future threats

### Features and Capabilities

NSM's design defeats threats, conditions and defensive systems anticipated through 2040. It combines low observable missile technologies, a passive seeker with autonomous target recognition and a programmable fuze to achieve unsurpassed degrees of survivability and lethality. For use over land, in confined waters, in the littorals and on the open sea. NSM has multidomain capabilities against land and sea targets. It features a launch phase solid propellant rocket motor booster and a sustained flight JP-10 fueled turbo-jet engine enabling more than 100 nautical mile range and high subsonic speeds.

### Over-the-Horizon Weapon

The government of Norway and Kongsberg developed the Naval Strike Missile (NSM) for the Royal Norwegian Navy as a modern, capable, lethal and survivable anti-ship and land attack cruise missile. NSM attained initial operational capability in 2012 and the partnership with Raytheon began in 2015.

The NSM is a fully developed, fielded weapon in the midrange anti-surface warfare mission area. The U.S. Navy selected NSM in 2018 as their over-the-horizon (OTH) weapon system for Littoral Combat Ships (LCS) and future frigates (FFG(X)).

### Survivability

The NSM features high survivability against modern and future air defense systems and potential hostile naval combatants. NSM has a low observable signature and an extremely low sea-skimming capability to avoid detection by enemy radars. It climbs and descends with the terrain and performs evasive maneuvers to counter the world's most capable defense systems.

## Naval Strike Missile



U.S. Navy Platforms: Freedom- and Independence-class Littoral Combat Ships.

### Reliability

The NSM is fully operational and in use today. The weapon was successfully launched on the U.S. Navy's Littoral Combat Ship USS Coronado in 2014 and from a mobile, land-based U.S. Army Palletized Load System truck in 2018. The Royal Norwegian Navy has it in service since 2010 on Nansen-class frigates and Skjold-class missile corvettes and it is part of Poland's coastal defense system.

### Target Selectivity

The NSM uses an advanced seeker for precise targeting in challenging conditions. NSM possesses the capability to identify targets down to ship class — a feature that is vitally important to warfighters who must strike only specific, selected targets in congested, contested and denied environments. This capability, coupled with the weapon's extreme aim-point accuracy, greatly reduces collateral damage risk.



### Lethality

The NSM maximizes target damage by combining high precision with a programmable fuze. NSM has a selectable aim point on the target. The modern programmable electronic safe and arm device fuze enables select penetration of the target before warhead detonation, resulting in a controlled destruction effect.

### Specifications

Length (with booster)	156 inches (396 centimeters)
Weight (with booster)	910 pounds (412.769 kilograms)
Range	Greater than 100 nautical miles
Speed	High subsonic

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# Raytheon

## Russia presents at DEFEA 2021 full range of modern defense products

**Rosoboronexport** (part of the Rostec State Corporation) is organizing a single Russian exhibit at DEFEA 2021 in Athens encompassing the latest products for Land, Air and Naval forces.

"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 increased military-technical cooperation both with Greece and other friendly European states participating in the exhibition," said Alexander Mikheev, Director General of Rosoboronexport.

The company expects an interest toward the small arms (Kalashnikov AK-200 series and AK-15 assault rifles, Kalashnikov Pecheneg machine gun and 12.7 mm 6P50 machine gun), artillery and missile systems (Msta-S self-propelled howitzer upgraded to NATO's 155 mm caliber, Khризantema-S and Kornet-EM anti-tank systems, Tornado-S 300 mm multiple rocket launcher, as well as to the A-220M 57 mm remote controlled weapon station). As to the armour, the scaled models of T-90S MBT and the BT-3F armored personnel carrier are being showcased.

«The company's delegation is ready to provide comprehensive information on the Orion-E unmanned aerial vehicle, which Rosoboronexport has started promoting worldwide in a reconnaissance/strike version. Special Technology Center presents a model of its Orlan-10E unmanned aerial vehicle at Rosoboronexport stand», - said the company.

In addition, Rosoboronexport is offering counter-drone electronic warfare systems that have been successfully tested under combat conditions such as the Repellent system and its super-mobile version, Repellent-Patrol, mounted on light army SUVs.

A wide range of Russian military aircraft and helicopters is also presented – the Yak-130 combat training aircraft, the Su-35 multirole super-maneuverable fighter, the MiG-35D two-seat multifunctional front-line fighter and the IL-76MD-90A(E) military transport aircraft, the Ka-226T multi-purpose helicopter, the Ka-52 scout/attack helicopter, the Mi-35M transport/attack helicopter, Mi-17V-5, Mi-171Sh military transport helicopters and the Ka-31 radar picket helicopter.

In the naval domain Rosoboronexport presents such projects as the Gepard-3.9-class frigate, Project 20382 Tigr-class corvette, BK-16E high-speed transport/landing boat and BK 10, BK-10M and BK-9, Project 636 and Amur 1650 diesel-electric submarines, as well as P-750, Piranha and Piranha-T small submarines. For coastal defense Rosoboronexport has in its portfolio the Rubezh-ME and Bastion modern coastal defense missile systems with the Yakhont anti-ship cruise missile.

Finally, Rosoboronexport is presenting a range of air defense and electronic warfare systems - the Viking medium-range SAM system, S-400 Triumph long-range ADMS, Verba MANPADS, as well as the Tor-E2 SAM system and the Pantsir-S1 anti-aircraft gun/missile system.



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## **Rafael's Trophy Active Protection System selected for integration on the UK's Challenger 3 Main Battle Tank**

Rafael Advanced Defense Systems Ltd. announces that its Trophy Active Protection System (APS) for armored vehicles has been selected for the next phase of detailed assessment and integration by the UK Ministry of Defence for the Army's Challenger 3 MBT.

The selection is a result of a study conducted by the UK MOD as part of an upgrade program led by prime contractor Rheinmetall BAE Systems Land (RBSL), which will entail detailed integration and system trials of this lighter Trophy variant (Trophy MV), to fit the particular requirements of this vehicle. Developed by Rafael in response to successful anti-armor attacks, Trophy APS provides mature, combat-proven protection against rocket and missile threats and simultaneously locates the origin of the hostile fire for immediate response.

Trophy is the only fully integrated, combat-proven APS in the world and has been installed on Israel Defense Forces' Merkava tanks since 2010 and has also been installed on the Namer APCs. Trophy has also been supplied to four US Army Abrams MBT brigades, and will soon be supplied to Germany for its Leopard MBT's.

Trophy has made numerous combat interceptions with no injuries to crews or dismounted troops or damage to platforms since its first operational interception in 2011. Trophy has accrued over 1,000,000 operating hours, including 5,400 successful field tests, and is now under contract for serial production of over 1,800 systems.

David Farmer, Team Leader for the Challenger 3 delivery team at Defence, Equipment & Support, the procurement arm of the UK MOD, said: "I am delighted to welcome Rafael to our cohort of industry delivery partners who are working together to bring Challenger 3 to life. This is a significant programme for Defence, and the British Army and represents a huge shift in the modernisation of our land forces. The pioneering new technology that we are planning to use will allow us to deliver an immense warfighting capability."

Brig. Gen (Ret.) Michael Lurie, head of Rafael's land maneuverability systems directorate: "Trophy APS has saved the lives of numerous soldiers and has been instrumental in protecting assets on the battlefield and enabling tank crews to maneuver safely under anti-tank fire and perform their missions safely and fully. This system has changed the rules of the game in the armored warfare arena, and the UK's decision to choose Trophy for the protection of its crews, ushers in a new era for its armored forces as well. We are thankful to our UK partners for joining other nations and tier-1 armored corps who have put their trust in Rafael's Trophy APS."



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2018 key figures

## IAI Signs a US\$200 Million UAS Services Contract with a Country in Asia

Israel Aerospace Industries (IAI) recently signed a US\$ 200 million contract to provide unmanned aerial systems (UAS) services to a country in Asia, relating to IAI's Heron unmanned aerial vehicle (UAV). This is the fourth major UAS transaction that IAI has announced this year.

The Heron family leads IAI's range of UAVs. The various Heron models are used regularly for operational missions by over 20 customers worldwide. Controlled remotely from sea frigates or the seashore, the Heron supports ground and maritime missions against submarines and coastal guards. It transmits information while at sea, including between all the weapon systems participating in a mission. The Heron UAS may be fitted with LOS or SATCOM communication, and features "long runner" operational flexibility with automated remote takeoff, landing, and control with no need for deploying a control post near the runway.

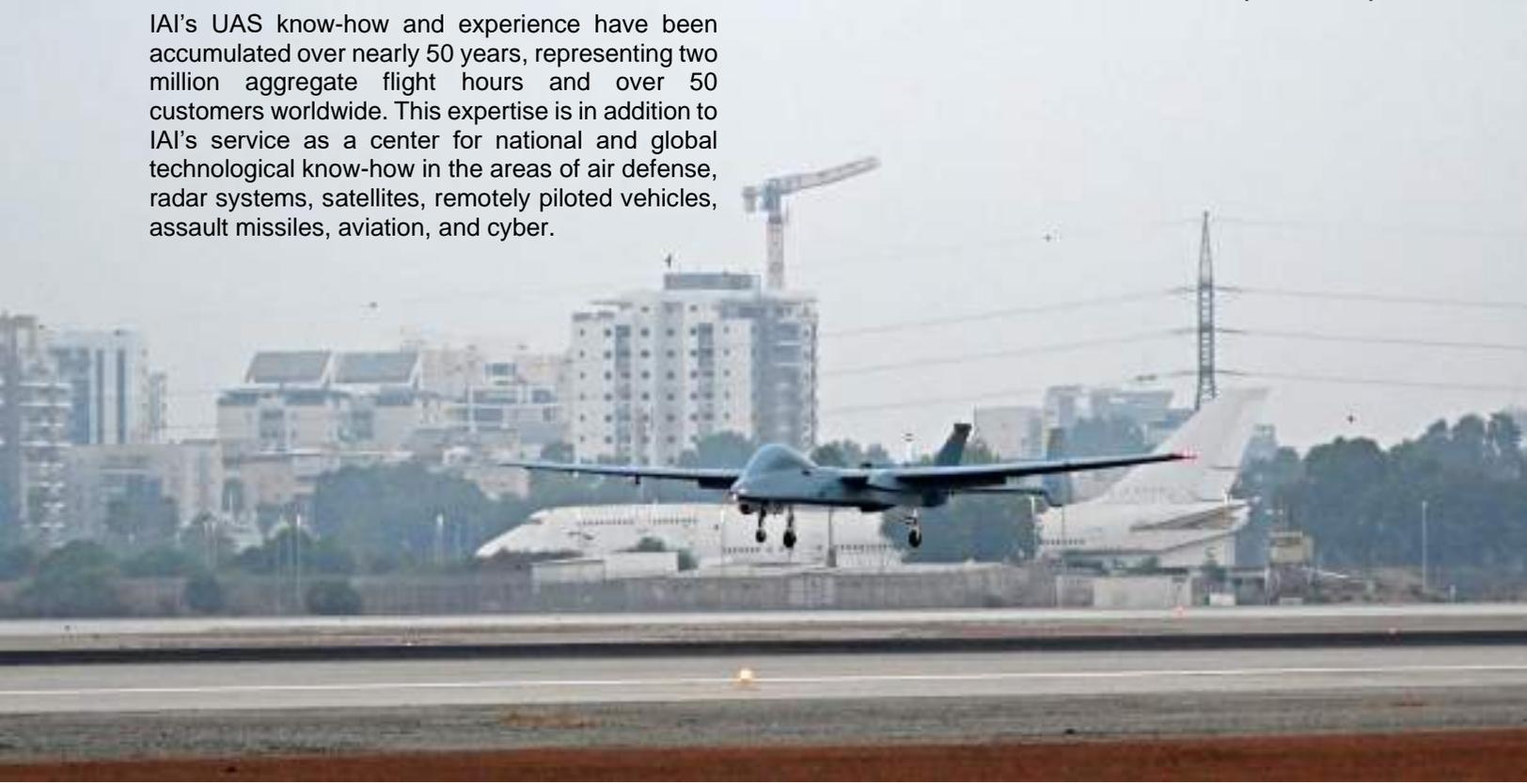
**IAI President and CEO, Boaz Levy**, said, "The deal is a testament to our customers' strong satisfaction with the Heron UAVs, including their operational and technical performance. Our customers repeatedly choose the Heron for its broad range of intelligence collection missions in different ground and weather settings."

IAI's UAS know-how and experience have been accumulated over nearly 50 years, representing two million aggregate flight hours and over 50 customers worldwide. This expertise is in addition to IAI's service as a center for national and global technological know-how in the areas of air defense, radar systems, satellites, remotely piloted vehicles, assault missiles, aviation, and cyber.

Israel Aerospace Industries (IAI) is a world-leading aerospace and defense company innovating and delivering state-of-the-art technologies in space, air, land, naval, cyber & homeland security for defense and commercial markets. Combining the "Start-up Nation" spirit of innovation with decades of combat-proven experience, IAI provides customers with tailor-made, cutting-edge solutions to the unique challenges they face, including satellites, UAVs, missiles, intelligence solutions, weapon systems, air defense systems, robotic systems, radars, business jets, aerostructures, and more. Established in 1953, IAI is one of Israel's largest technology employers with offices and R&D centers in Israel and abroad.



The Heron UAV (Credit: IAI)



## Extension of BOEING - INTRACOM DEFENSE cooperation in the USAF AWACS upgrade program

INTRACOM DEFENSE (IDE), signed a contract with the US company BOEING, a global leader in aerospace, defense and security, for the participation in US Air Force (USAF) Airborne Warning and Control System (AWACS) aircraft upgrade program, in the frame of an international tender.

With this new award, IDE extends its existing cooperation with BOEING in the AWACS program and establishes further its position in the global aerospace domain, as a manufacturer of high-quality products and a trusted Supplier to the world's leading aerospace and defense companies.

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.

## Extension of Co-operation between Intracom Defense and Diehl Defence in the IRIS-T family of missile systems

Intracom Defense (IDE) extends its cooperation with German based Diehl Defence with the receipt of new orders for the continuation of production of crucial electronic missile components and the design & manufacturing of Ground support equipment for the IRIS-T family of air & surface launched missile systems.

IDE's innovative airborne & missile electronics operate reliably over demanding environments and are based on key factors such as:

- IDE's world class technology and experience in the area of high data-rate military wireless systems, characterized by communication link robustness, security and high degree of jamming immunity.



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.



- Specialized, in-house high-speed electronics and advanced mechanical design capabilities, that allow for the development of applications with very demanding low size, weight, power and cost (SWaP-C) requirements.

Moreover, IDE concluded recently all qualification tests of the re-designed Field Test Equipment (FTE) eliminating all obsolescence issues. This new FTE design offers an improved cost solution (a new electronics kit) with enhanced reliability.

"This continuation of the successful co-operation with Diehl Defence in the IRIS-T family of missile systems confirms not only IDE's competitiveness and advanced technological level in cutting-edge technologies, but also acknowledges the valuable technical and logistics support that our company provides to our industrial partners and customers, as well as to the international and Greek Armed Forces", stated Mr. George Troullinos, CEO of IDE.



## Leonardo delivers HH-139B helicopter to the Italian Air Force

On 25 June 2021, Italian Minister of Defence Lorenzo Guerini and Italian Air Force Chief of Staff



Gen. Alberto Rosso attended the acceptance ceremony of an Italian Air Force HH-139B helicopter during an official visit to Leonardo's helicopter facility in Vergiate (Italy). Leonardo CEO Alessandro Profumo, Leonardo General Manager Lucio Valerio Cioffi, and Leonardo Helicopters' MD Gian Piero Cutillo were also in attendance. During the visit to the facility, the Authorities were shown the Company's industrial capabilities, products and advanced technologies, which are fully representative of Leonardo's leadership in the vertical flight domain and preserve in-country strategic technological capabilities. The HH-139B is a dedicated Air Force variant of the AW139 type. The aircraft will be used for a wide range of missions including SAR – Search and Rescue, firefighting, Slow Mover Interceptor.

Italian Minister of Defence Lorenzo Guerini said: "National sovereignty, from a military and technological point of view, is preserved today also thanks to this level of excellence and to the synergies among institutions, Defence and industry. Italy has prime industrial capabilities and Leonardo symbolises a nation, which can leverage a top world-class Aerospace, Defence and Security industry."

Alessandro Profumo, CEO of Leonardo, said: "We are proud to provide our capability so that the Italian Air Force's major duties such as supporting the national community and homeland security are guaranteed. The HH-139B is an iconic product fully representative of national industry's technology excellence and international competitiveness. The facility in Vergiate - the largest Leonardo helicopter final assembly line with more than 1,000 employees - shows outstanding rotorcraft capabilities in terms of products, manufacturing processes, and professional skills, and is able to maintain Leonardo and Italy at the forefront of innovation in an increasingly strategic and highly competitive sector."

Over 1,200 AW139s have been sold to more than 280 customers in over 70 countries, including more than 80 for Italian government operators (Air Force, Guardia di Finanza, State Police, Coast Guard, National Firefighting Department and Carabinieri), plus emergency medical service operators. This helicopter model benefits from advanced digital technology solutions, for both flight and missions as well as training (pilots and maintenance technicians) and support.

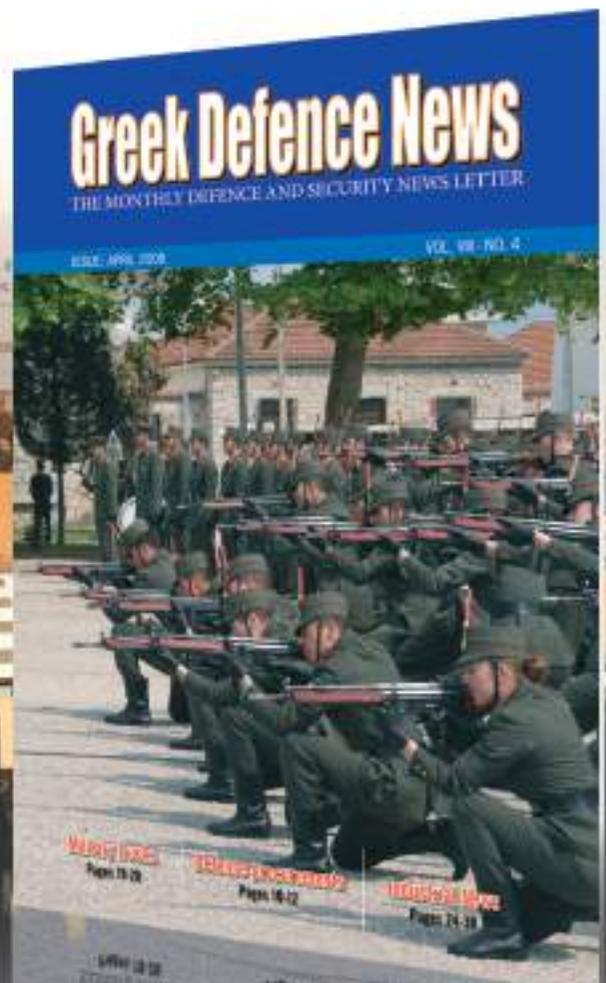
The helicopter's state-of-the-art satellite navigation and synthetic vision system has 3D representations of the external environment on cockpit displays even in poor visibility conditions, advanced collision avoidance and proximity systems, mission sensors and an automatic flight control system, which can assist the crew during SAR and hoisting in harsh environmental and weather conditions.

The AW139 also features modern predictive maintenance and diagnostics solutions allowing accurate, rapid assessment and data processing on the health and usage of aircraft components. This allows more efficient maintenance activities increasing operational effectiveness and safety. Both flight and maintenance training are extensively delivered in virtual environments and simulation. Crews can therefore maximise their ability to use equipment and leverage the best performance of the product during missions. Maintenance technicians can leverage virtual training therefore increasing technical assistance quality and reliability. All of these capabilities bring greater safety to operations.



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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.



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