Grek Defence News

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Bonus

Distribution

"Agenda 2030- Hellenic Armed Forces Digital Transformation"

19-20 November 2024, War Museum, Athens, Greece



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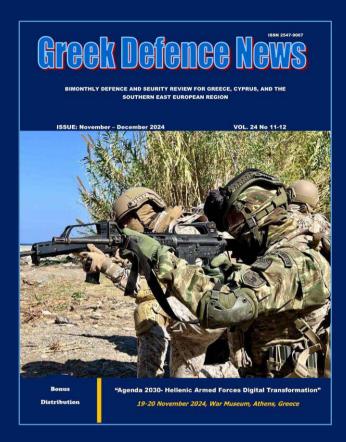
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RHEINMETALL KNDS SKYTALYS IDE ISRAEL SHIPYARDS GDELS DEFSECINTEL SH DEFENCE **5TH C4ISR ATHENS** INTERNATIONAL CONFERENCE **IDEX 2025** DRDC RHEINMETALL

Modern Ammunitions

KNDS Ammo France is part of KNDS France's Ammunition Department, alongside the companies KNDS Belgium and KNDS Ammo Italy S.p.A. KNDS Ammo France is primarily the ammunition manufacturer for systems developed by KNDS France.

Ammunition is designed and qualified at the same time as systems, guaranteeing their efficiency, reliability, along with security for their users. The product family includes 155 mm and 105 mm (and 100 mm for the naval system) ammunition for artillery systems, 120 mm and 105 mm ammunition for battle tanks, 90 mm ammunition for armored vehicles and 40 mm, 30 mm, 25 mm and 20 mm ammunition for guns on light vehicles, aircraft, helicopters and ships. Most of the product range conforms to NATO standards. Finally, KNDS Ammo France is a leading partner of European missile manufacturers in the fields of military warheads, weapons security devices, pyrotechnic components, and insensitive charges and ammunition.

KNDS France recently conducted a live-fire demonstration of its CAESAR 8x8 self-propelled howitzer at a Polish Armed Forces test range, highlighting the performance of its 155mm artillery ammunition. According to Polish defense sources, the CAESAR system demonstrated a range exceeding 42 km. Additionally, KNDS showcased its LU 220 artillery projectile and the Bonus precision artillery projectile, underscoring their suitability for long-range precision engagements.

The demonstration reflects KNDS France's interest in establishing a partnership with Poland in artillery ammunition production, especially in areas like propellant, fuzes, and primers. Poland, which is expanding its artillery production capacity, currently lacks advanced expertise in 155mm shell production and is seeking foreign technology partners to fill this gap.



© KNDS

Poland's defense procurement agency has also initiated a market survey for precision artillery shells compatible with the AHS Krab and K9 artillery systems, in line with Poland's goal to bolster its artillery capabilities.

This cooperation could enable Poland to meet its growing needs for advanced munitions while fostering local production capabilities.

Modern artillery doctrine calls for a well-balanced mix of ammunition capable of meeting the full range of contemporary mission requirements with maximum effectiveness. **Rheinmetall Defence** supplies an extensive of array of 155 mm ammunition for a wide variety of missions at long ranges of engagement.

These include high explosive shells (some featuring insensitive explosives), illumination rounds for the visual and IR spectrums, multispectral smoke/obscurant projectiles, the sensor-fused SMart round, and practice ammunition.

The 155 mm sMArt sensor-fused DM702: Intelligent and autonomous, the SMArt®155 is a highly effective sensor-fused, fire-and-forget artillery projectile that delivers outstanding cost effectiveness. Known by the Bundeswehr as the DM702, the SMArt®155 can be fired from any 155 mm gun.



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The unmanned 40 CTA turret integrates a generic vetronic architecture which allows an unparalleled modularity resulting in outstanding operational capabilities both in urban areas and open battlefields. Its feeding system based on a carousel and the addition of pods featuring the latest generation of antitank missiles ensure the immediate availability of the right ammunition to defeat any target.

KNDS



© Rheinmetall

The ammunition family offered by Rheinmetall in the artillery sector includes the DM121 explosive projectile, the DM125 smoke projectile and the DM702 SMArt search fuse ammunition (a production with Diehl Defence) as well as the RH68 training projectile and the RH1901 and RH1902 range-optimised smoke projectiles. The portfolio also includes the versatile 155mm Assegai artillery ammunition family from Rheinmetall Denel Munition: insensitive ammunition (IM), conventional explosive projectiles (High Explosive/HE) as well as smoke, illumination, infrared illumination and other projectiles. The entire Assegai ammunition spectrum can be used at the full range of around 40 kilometres.

Rheinmetall has successfully completed the development of the latest generation of its enhanced armour-piercing 120mm KE-ammunition to counter state-of-the-art protection technologies. The qualification readiness of the KE2020Neo or eKE (enhanced Kinetic Energy) ammunition has also been proven. As a result, Rheinmetall has been commissioned by the Bundeswehr and the British Army to manufacture qualification samples of the new ammunition.

A corresponding official qualification contract was signed in September 2020 by the Federal Office for the Equipment, Information Technology and In-Service

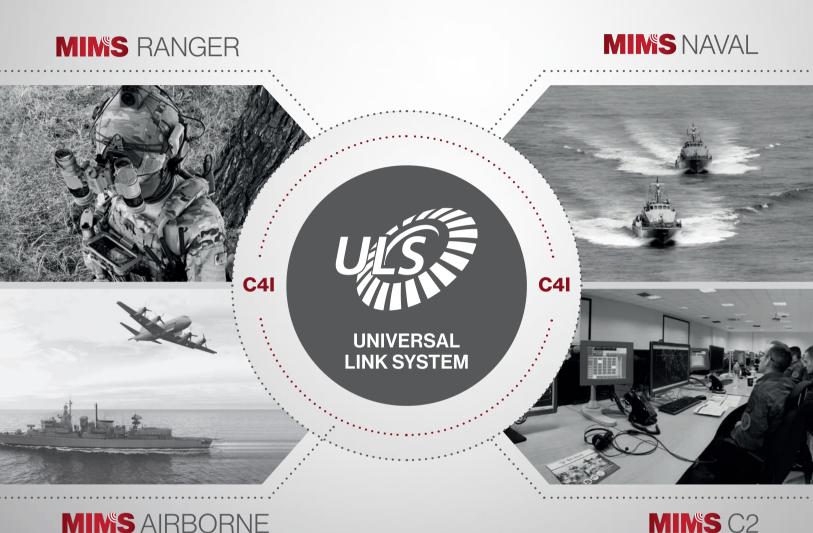
Support of the Bundeswehr (BAAINBw) and the management of Rheinmetall Waffe Munition GmbH.

The new 120 mm x 570 KE2020Neo kinetic energy ammunition continues the successful series of kinetic energy (KE) rounds from Rheinmetall. Thanks to the use of new technologies, the high-strength tungsten penetrator shall be able to penetrate the latest protection technologies.

Rheinmetall's current KE projectiles also use a highstrength tungsten penetrator and offer superior performance against modern armour. The first generation to come into use was the DM13. It was followed by the more powerful DM23 in the mid-1980s, and yet later, the DM33. Rheinmetall developed two types of performance-enhanced KE ammunition when the Leopard 2 was upgraded to the A6 version. These were the forerunners of the DM53 and DM63 models used by the Bundeswehr. The DM63 is now available in the REACh-compliant version A1. The enhanced DM73 is currently the most advanced iteration, which has been introduced in the Bundeswehr for use with the L55A1 high-pressure weapon. Equally effective against stationary and moving targets, it enables artillery commanders to engage lightly and heavily armoured vehicles in top attack mode in all weathers and in all types of terrain with pinpoint precision.



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MINISTRY OF DEFENCE

Greek Defense Minister Nikos Dendias visited Serbia

On November 5, Greek Defense Minister Nikos Dendias paid an official visit to Serbia, where he met with President Aleksandar Vučić and Serbian Defence Minister Bratislav Gašić. The visit underscored the enduring ties between Greece and Serbia, with a focus on strengthening their strategic defense partnership and collaboration in security matters.

During his meeting with President Vučić, Dendias highlighted the strong bonds of friendship and historical ties between the two nations. With Defence Minister Gašić, Dendias discussed avenues for deepening military cooperation, including joint training exercises, enhanced defense innovation, and scientific partnerships in military medicine. The ministers also addressed regional security concerns, including the Belgrade-Pristina Dialogue, with Dendias reiterating Greece's support for stability and Serbia's European Union path.

In his address, Minister Dendias first expressed his deepest condolences on the tragic events in Novi Sad. He then thanked for the great support that Serbia provided to Greece during the major fires in that country. Speaking about today's meeting, Minister Dendias said that it was an opportunity to discuss many issues related to the security of the entire region, but also our bilateral relations.

Those are our relations that also carry strategic weight under an agreement we have signed, and we also discussed the need to advance our cooperation and the fact that we can benefit from experience-sharing – the Greek Minister of Defence said expressing his satisfaction that he would visit the Military Technical Institute.

He emphasized that today's meeting addressed the Belgrade-Pristina dialogue and reiterated Prime Minister Mitsotakis' words that Greece's position on the so-called Kosovo remains firm. Only progress in the Belgrade-Pristina dialogue can bring prosperity and stability to this region. Greece is part of the KFOR mission and we are ready to make every effort to preserve stability in the region.

I would also like to remind you of Greece's position on the Western Balkans - Greece advocates for long-term peace, stability and security through good neighbourly relations, respect for international law and the principle of the rule of law - Minister Dendias said, emphasizing that Greece believes that all Western Balkan countries should become members of the European Union, that it supports Serbia's decision to be on that European path, and congratulated Serbia on the progress it has made.

As part of the agenda, Dendias visited the Military Technical Institute in Serbia to review defense technology collaboration opportunities, guided by Serbian Deputy Defence Minister Dr. Nenad Miloradovic. The visit concluded with a luncheon hosted by Gašić, marking a further step in the two countries' defense relationship and shared commitment to regional security.





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Greek Defense Minister Nikos Dendias met with his Zambian counterpart Ambrose Lwiji Lufuma



© MOD

On 12 November 2024, the Greek Defense Minister Nikos Dendias welcomed his Zambian counterpart, Minister Ambrose Lwiji Lufuma, in Athens, marking the first official visit of a Zambian Defense Minister to Greece. The historic occasion included a meeting at the Ministry of National Defense, attended by senior Greek defense officials, such as Deputy Defense Minister Yiannis Kefalogiannis, and Chiefs of Staff General Dimitrios Houpis, Lieutenant General George Kostidis, and Chief Grigoriadis.

During private talks and wider discussions between the two delegations, both sides explored ways to deepen defense ties, exchanging views on regional geopolitical developments. A key outcome was the signing of a Memorandum of Understanding (MoU), enabling Zambian military personnel to study in Greek military educational institutions. This agreement reflects Greece's commitment to strengthening relations with African countries, emphasizing the role of defense diplomacy.

Minister Dendias underscored the importance of expanding defense cooperation with Zambia and highlighted the potential for training exchanges, joint multinational exercises, and collaboration in Greece's defense innovation initiatives. Additionally, he shared Greece's ongoing military reform, known as "Agenda 2030," expressing readiness to share insights from this transformation.

Dendias also expressed gratitude for Zambia's support for Greece's bid for a non-permanent seat on the United Nations Security Council for 2025-2026 and acknowledged Zambia's strong stance on sovereignty and territorial integrity, notably regarding Cyprus. He further commended Zambia's active role in UN peacekeeping missions and praised its alignment with EU positions on international issues, especially given its early endorsement of the United Nations Convention on the Law of the Sea (UNCLOS).

The visit will continue with Lufuma touring military schools in Athens and Thessaloniki, strengthening bilateral defense ties and cooperation.

Following his meeting with Zambian Defense Minister Ambrose Lwiji Lufuma, Greek Defense Minister Nikos Dendias shared on Twitter:

"I met today with Minister of Defence of Zambia, Hon. Ambrose Lwiji Lufuma, during the first ever visit of a Zambian Defence Minister to Greece. In the context of our meeting, we signed a Memorandum of Understanding regarding the attendance of GR Military Education Institutions by zm Military personnel.

We also exchanged views on issues of regional Defence and Security, while I had the opportunity to stress that the enhancement of our defence cooperation with countries of the African Continent constitutes one of our main priorities."

This historic MoU paves the way for Zambian military personnel to receive training in Greek institutions, aligning with Greece's broader strategy of strengthening defense partnerships across Africa.

Visit of the Chief of Hellenic Navy General Staff to the International Naval Defense Exhibition EURONAVAL 2024



© HNGS

During his visit to EURONAVAL 2024, which took place from Monday, November 4 to Tuesday, November 5, 2024, Vice-Admiral Dimitrios, Chief of the Helllenic Navy General Staff Dimitrios- Eleftherios Kataras HN engaged with key figures in naval defense. At the invitation of his French counterpart, Admiral Nicolas Vaujour, Vice-Admiral Kataras attended the opening of the Greek Equipment Manufacturers (SEKPY) Pavilion. He also visited various defense technology companies' stands, gaining insight into the latest developments in naval technology and shipbuilding. In addition to his participation in the exhibition, Vice-Admiral Kataras held important meetings on the sidelines of the event. He met with Admiral Vaujour and Rear Admiral Anthony E. Rossi, Director of the US Navy's International Programs Office (NIPO), to discuss matters of mutual interest, strengthening ties and exploring potential collaborations.

→ Multinational INVITEX «MEDUSA-13»

On Saturday 19 October 2024 the multinational Invitation Exercise (INVITEX) "MEDUSA-13" concluded with the participation of personnel and assets from Greece, Cyprus, Egypt, France and the Kingdom of Saudi Arabia. "MEDUSA – 13" started on 12 October

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2024 and took place in the region of Crete Island and the Aegean Sea, Greece. Moreover, observers from Bahrein, Jordan, India, Italy, Morocco, Mozambique, Rwanda and the United Arab Emirates attended the INVITEX. The objective was to enhance the cooperation and the interoperability of the participating armed forces.

The Distinguished Visitors Day (DV-Day) of the exercise occurred in Maleme, Crete, during which a series of joint operational capabilities were shown, as follows:

- Military Free Fall (MFF) MFF display jump.
- Maritime Interdiction Operation Visit Boat Search Seizure (MIO – VBSS).
- Direct Action (DA) Mission Abseiling with the use of Fast Rope
- Joint Terminal Attack Controller (JTAC) operations.
- Close Combat Attack (CCA).
- Over the beach operations (Amphibious Assault).

The DV-Day was attended by the:

- Chief of the Hellenic National Defence General Staff (H.N.D.G.S.), General Dimitrios Houpis.
- Chief of Staff of the Egyptian Armed Forces Lieutenant General Ahmed Fathi Ibrahim Khalifa
- Chief of the National Guard General Staff of Cyprus Lieutenant General Georgios Tsitsikostas.
- French Commander-in-Chief, Mediterranean (Commandant en chef pour la Méditerranée – CECMED) Vice Admiral Christophe Lucas.
- Western Fleet Commander of the Royal Saudi Navy Rear Admiral Mansour Alijuaid
- The Ambassador of Egypt in Greece HE Omar Amer Youssef
- Chief of the Hellenic Army General Staff
 Lieutenant General Georgios Kostidis, Chief of
 the Hellenic Navy General Staff Vice Admiral
 Dimitrios Kataras HN, Chief of the Hellenic Air
 Force General Staff Lieutenant General
 Dimosthenis Grigoriadis.

- Commander in Chief of the Hellenic Fleet Vice Admiral Polychronis Koulouris HN and the Commander of the Special Warfare Command (S.W.C.) Lieutenant General Prokopios Mauraganis
- Senior Officers of the Armed Forces of the participating countries as well as the Defence Attaches.

"GORGO-24."

From November 4 to 8, 2024, Greece conducted the Post-Troop Tactical Exercise (TAMS) "GORGO-24," engaging military units, personnel,

and resources from various Major Commands and Major Formations across the country.

This exercise, held annually, is a National Medium-Scale Formation Exercise (DM), designed to assess the effectiveness of defense plans and enhance the training of formation staff and unit personnel. During "GORGO-24," participants executed these plans in realistic operational environments, aiming to improve readiness and ensure the efficacy of Greece's defense strategies.

HELLENIC ARMED FORCES ARMAMENT PROGRAMS



> Precision Strike Missile

The Hellenic Army is evaluating the acquisition of the U.S.-developed Precision Strike Missile (PrSM) to modernize its rocket artillery capabilities. Lessons from the Ukraine conflict, where rocket artillery has proven vital for long-range targeting, are also being considered as part of the assessment. Upgrading Greece's existing MLRS systems is necessary to support the PrSM, prompting consideration of a two-thirds fleet upgrade of its 36 MLRS systems to the A2 standard, at an estimated cost of €1 billion. Alternatively, the army may upgrade a third of the fleet while procuring new missiles.

The PrSM, developed to replace the Army Tactical Missile System (ATACMS), features an extended range of over 400 kilometers (248 miles) and a streamlined design, allowing it to be launched from both HIMARS and M270A2 MLRS platforms. This upgrade would enhance the Hellenic Army's ability to execute precise, long-range strikes, improving Greece's overall defense posture.

HELLENIC NAVY

Island-class patrol boats



© Salamis Shipyards

Salamis Shipyards has successfully completed and delivered the first two Island-class patrol boats to the Hellenic Navy, with the vessels now docked at Salamis Naval Base. These initial deliveries highlight Salamis Shipyards' capabilities and demonstrate the Greek shipbuilding industry's capacity to handle complex defense projects.

The remaining two Island-class patrol boats are on schedule and expected to be delivered by the end of December 2024.

This demanding project, encompassing repair, reactivation, and upgrades, underscores the shipyard's expertise in handling intricate defense requirements. Salamis Shipyards' previous experience with similar projects was pivotal in their selection by the U.S. Coast Guard for this work.

HELLENIC AIR FORCE

Key Modernization Programs of the Hellenic Air Force

In his recent interview with Athens- Macedonian News Agency Lieutenant General Dimosthenis Grigoriadis, the Chief of the Hellenic Air Force General Staff, provided insights into the Hellenic Air Force's armament programs.

He emphasized efforts to modernize and expand capabilities, including the procurement of F-35 fighters with advanced Block 4/TR3 features, upgrades to existing F-16 Viper aircraft, and the potential acquisition of aerial refueling tankers like the Boeing KC-135.





© HAIRGS

Lieutenant General Grigoriadis also highlighted ongoing evaluations of self-protection systems and new weapon technologies to ensure the Air Force's readiness and adaptability to emerging defense needs. The Air Force's focus on enhancing its fleet's interoperability, especially through local partnerships with organizations like ELKAK, was another key point of discussion.

- Rafale Fighters: Greece is nearing the completion of its Rafale fleet, expecting the final six of 24 aircraft by the end of the year.
- F-35 Program: Greece has committed to acquiring 20 F-35 fighters, with the first eight expected to arrive in the U.S. in 2028 for training of Greek pilots and technicians, who will bring them to Greece in 2030. A second order of 20 F-35s is also planned, bringing the total fleet to 40.
- F-16 Viper Upgrades: The F-16 Viper upgrade program is progressing on schedule, with nearly two squadrons ready. A proposal from the U.S. to upgrade Block 50 aircraft to the Viper standard is expected soon.

Vice Admiral Grigoriadis addressed the impact of global inflation on defense procurement, especially noting significant cost increases stemming from global events like the Ukraine war. He underscored the need to manage costs effectively, highlighting Greece's plan to employ advanced simulators for the F-35 to reduce operational expenses associated with maintenance.

The Greek F-35s are expected to feature the latest Block 4/TR3 configuration, equipped with cutting-edge technology and systems. The acquisition also allows Greece's F-35s to carry the Meteor missile, significantly enhancing their strike capabilities.

The Hellenic Air Force plans to expand its arsenal with weapons such as the AIM-120D AMRAAM, AGM-158 JASSM (1,000 km range), Harpoons, Rampage, and SPICE. The Air Force is also exploring options for

adding custom systems similar to those integrated by Israel, pending necessary approvals.

The Air Force Chief hinted at a future program that may equip over 120 F-16 Vipers with new self-protection systems, as well as exploring innovative technological advancements to strengthen Greece's air defense. These additions are intended to provide Greek pilots with comprehensive situational awareness and a technological edge in modern aerial warfare.

The Air Force's comprehensive plan underscores Greece's commitment to staying at the forefront of modern defense technology, ensuring readiness and tactical advantage.

A key focus is equipping up to 120 upgraded F-16 Vipers with advanced self-protection systems. The Air Force is evaluating three system proposals that are being developed for the U.S. military and would be available at a reduced price for Greece as a secondary user. This arrangement would allow Greece to license and customize the system's programming, creating a unique "library" of defensive capabilities adapted to its specific operational needs.

The Hellenic Air Force is planning to adopt new active interference systems, including active decoys and GPS jammers, to enhance aerial warfare capabilities. Collaboration with ELKAK (Hellenic Aerospace Industry) includes proposals for integrating jammers and drones. When asked about potential interoperability between future Greek-manufactured drones and the Greek F-35s, the A/GEA confirmed that fighter manufacturers can accommodate such customizations.

The Greek Air Force's Rafale fleet will reach 24 by the end of 2024, with the possibility of acquiring six additional aircraft, potentially of the advanced F4 version. However, the decision will depend on cost considerations and infrastructure requirements, such as control systems and maintenance workshops.

Vice Admiral Grigoriadis emphasized Greece's interest in acquiring four Boeing KC-135 Stratotankers from the U.S. in 2025, requesting that they be transferred directly without downtime in storage. He highlighted the operational benefits of tanker aircraft for longer-range missions, such as recent exercises in India.

Reflecting on the character of future generations of pilots, the A/GEA stressed the importance of commitment, teamwork, and a deep understanding of aircraft technology. He encouraged aspiring aviators to respect and value their planes, emphasizing that passion and knowledge reduce accident risks and enhance operational effectiveness.

This strategic vision underscores Greece's dedication to a technologically advanced and resilient Air Force, prepared to meet future challenges with robust equipment and highly motivated personnel.

HELLENIC DEFENCE INDUSTRY

IDE participated in NATO NEMO Trials 2024



© IDE

IDE participated in the Electronic Warfare exercise NATO NEMO Trials 2024, organized and directed by the Hellenic Navy between 7-11 October 2024, in the land and sea area of Akrotiri Chania and Souda Crete.

During the exercise and following scenarios of escalating difficulty, the operational capabilities and state-of-the-art technologies of two IAI/ELTA's tactical ESM / ELINT systems, interconnected with IDE's high-

speed broadband radios, were successfully utilized, offering a complete solution of a mini-tactical Command & Control (C2) system, where the synthesis of a recognized picture of the tactical field is based solely on passive sensors.

NATO

NATO Secretary General and President Macron discuss defence production and Ukraine

NATO Secretary General Mark Rutte and President Emmanuel Macron discussed on Thursday (12 November) the need to step up support for Ukraine, ramp up defence production and boost transatlantic defence industrial cooperation. During his first official visit to Paris since taking office, the Secretary General highlighted the importance of France's high-end military capabilities and skilled armed forces for the collective security of the Alliance.

They discussed the need for increased defence investment and robust transatlantic cooperation to ensure the Alliance's lasting security. "The more we spend on defence, the more we reduce the risk of future conflict," said Rutte.

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Mr. Rutte and President Macron also discussed the need for more support for Ukraine ahead of what could be its harshest winter, as Russia relentlessly targets its energy infrastructure. Mr Rutte commended France for training and equipping an entire Ukrainian brigade, the Anne of Kyiv Brigade, and for its pledge to send Mirage fighter jets early next year. "France has delivered advanced artillery guns, air defence systems, cruise missiles, and armoured vehicles," he said.

The Secretary General also raised concerns about deepening military ties between Russia, China, Iran and North Korea, which pose a threat to European security and global peace. Prior to his meeting with the French President, the Secretary General visited the French defence industry company Thales Group. During the visit, Mr Rutte met with young talents and engineers developing cutting-edge capabilities for NATO Allies.

ESDP

⇒ EDA charts new waters in maritime infrastructure protection

In October, maritime security experts, military leaders, and industry professionals gathered to enhance international cooperation and expertise in defending maritime infrastructure.

The Naval Station of La Algameca, in Cartagena, hosted the first "Harbour Protection Seminar-Exercise" from 7 to 18 October. Organized by the Spanish Navy's Unit of Countermine Measures Divers (UBMCM) collaboration with the European Defence Agency (EDA), the exercise gathered over 100 experts professionals from 10 different countries: Spain, Germany, Italy, Portugal, Ukraine, Greece, Estonia, Ireland, Latvia, Romania, and Belgium. The event underscored the importance of international cooperation safeguarding harbors and critical maritime infrastructures. The main objective of the seminar was to update participants on the latest technologies, tactics, techniques and procedures (TTPs) related to maritime infrastructure protection, with a special focus on the threat of improvised explosive devices (IEDs).



© EDA

During the first week, presentations were given by experts from renowned institutions, such as the National Geographic Institute and the IED Centre of Excellence in Countermeasures (COE-CIED). Industry was also present and several companies from the defence sector presented cutting-edge technological innovations in this field. The most relevant innovations included the Bayonet tracked underwater robot, an aerial drone equipped with a LIDAR with bathymetric sensor, and software for the creation of 2D models from sonar images. A 5G remote device control system was also presented. The second phase of the seminar consisted of simultaneous practical exercises in various maritime scenarios, including port areas, shallow waters and a simulated gas pipeline. During these exercises, limpet mines and over 100 kg of explosives were used, where teams worked on the identification and neutralisation of mines and explosive ordnance, covering all stages of the explosive ordnance disposal (EOD) and incident management (WIT) process.

The 'Harbour Protection Seminar-Exercise 2024' has proven to be an invaluable platform for the improvement of tactics, techniques and procedures (TTP) and interoperability between the various participating Armed Forces. It highlighted the importance of continuous readiness and learning in a constantly evolving technological and threat environment.

NORTH MACEDONIA



On 8 November 2024, Minister of Defense Vlado Misajlovski attended a briefing at the "Strasho Pindzur" barracks in Petrovec, with a presentation of the process of introducing the light armored vehicles "Stryker" into operational use within the Army. The Chief of the General Staff of the Army, Major General Sashko

Boban NikolovskiS. Ambassador to our country, Angela Aggeler, and the Director of the Customs Administration, Boban Nikolovski, attended the briefing. The purchase of these armored vehicles is part of the process of Army modernization, and according to the plans, the first vehicles of this type should arrive in our country next year. This briefing was preceded by a week-long joint workshop by Army personnel with the Security Management Institute, the Vermont National Guard and the US 4th Security Force Assistance Brigade.

SERBIA

Evaluation of Serbian Armed Forces unit for participation in peacekeeping operations

Tactical Exercise Serbian Shield, which tested the SAF infantry company's skills and interoperability, has been completed successfully at the South Base and Borovac training ground today, confirming the readiness of this unit to engage in peacekeeping operations.

The exercise was organized and conducted following several months of preparations to test in practice the ability of the 4th Brigade infantry company to be deployed to the area of operation in Lebanon.



© Serbian MOD

During several days of exercise activities in the field, the unit carried out tactical tasks tailored to the mission and conditions prevailing in the area pf operation — from procedures in the event of an attack on the base or encountering mines and explosive ordinance, to the application of tactical actions and procedures in securing checkpoints, convoys and escorts, medical evacuation of the injured, suppressing and controlling mass gatherings. The work of the unit according to given scenarios was monitored and evaluated by the evaluation team from the Serbian Armed Forces General Staff, the conclusion being that the infantry company met the defined standards of training and interoperability.



The Serbian Armed Forces have been deploying an infantry company in the mission in Lebanon since 2013, and there is also a force protection platoon in the area of operations as well as staff officers and a group of specialists in support of the Serbian contingent. In extremely complex security conditions in operations, the contingent of the Serbian Armed Forces performs all assigned tasks professionally and responsibly, working closely with members of peacekeeping forces from other countries and strictly observing the comprehensive protective measures prescribed by the Mission HQ.

TURKEY

SUCCESSFUL FIRING TEST FROM TOLUN WITH ANKA-III



© Aselsan

ASELSAN's TOLUN, which multiplies the power of air platforms in the field, has completed the firing tests conducted from the ANKA-III, developed by Turkish Aerospace Industries (TAI). In its first firing test conducted in Konya, Türkiye, TOLUN was deployed individually and hit the target with pinpoint accuracy.

During the firing test, ANKA III hit the target from 20 thousand feet with a speed of 180 knots with ASELSAN's TOLUN ammunition with full accuracy. Secretary of Defense Industries, Prof. Dr. Haluk Görgün watched the whole test live from İstanbul and congratulated the team that conducted the successful test. ASELSAN President & CEO, Ahmet Akyol, celebrated the results on his social media accounts and said: "We will steadfastly continue developing game changing technologies that will strengthen our UCAVs."

SIPER-1 LONG-RANGE AIR DEFENSE SYSTEM HAS ENTERED THE INVENTORY OF TURKISH ARMED FORCES

The deterrent power of the Steel Dome, the SİPER Product-1 System, has entered the Turkish Armed Forces inventory. SİPER Product-1, ASELSAN's long-range air defense system, provides effective long-range

and high-altitude defense, strengthening Türkiye's goal of fully protecting the country's borders with domestically developed systems. SİPER System will be able to engage aerial targets such as fighter jets and cruise missiles, as well as air-to-ground munitions. SİPER Air Defense System has the ability to operate with 8 FFS, each of which can fire 6 missiles.



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Development work continues on the SİPER Product-2 system, which will have even more advanced capabilities. The Long-Range Regional Air Defense System, SİPER Product-1, which has entered the Turkish Armed Forces' inventory, will serve as a powerful deterrent against strategic targets and air assaults. ASELSAN President & CEO Ahmet Akyol shared the news on his social media and mentioned: "We have brought to our country a system that only a few countries in the world have been able to develop. We will continue to work towards a fully independent defence industry with even greater effort."

HAVELSAN's ADVENT Combat Management System

Imagine a fleet of warships navigating complex and evolving threats in real-time, seamlessly coordinating across air, land, and sea platforms, all while maintaining a decisive edge over potential adversaries. This is not a futuristic scenario—it is the reality that HAVELSAN's ADVENT Network-Enabled Combat Management System (CMS) delivers for modern navies.

The story of ADVENT begins with a clear need: Türkiye's expansive maritime borders and its critical strategic position require a robust, responsive, and adaptable combat management system. In collaboration with the Turkish Naval Forces Research Center Command, HAVELSAN developed ADVENT to meet the challenges of the future while ensuring operational superiority today.

ADVENT represents not just an upgrade, but a transformation in how naval warfare is conducted. His unwavering confidence in this system is evident, as he has mandated its integration across all naval platforms in Türkiye, stating:

ADVENT is more than just a technology solution—it is a strategic enabler. Its network-enabled capabilities allow naval forces to operate as a unified system, rather than isolated platforms, significantly improving real-time data

sharing, communication, and coordination between ships, submarines, and aircraft.

At the heart of ADVENT's development was a vision of enhancing the Navy's ability to rapidly adapt to changing threats and operational environments. Today, this vision has been realized, positioning ADVENT as a vital force multiplier not only for Türkiye but for naval forces around the globe.



Türkiye's naval forces have quickly recognized ADVENT's value, but the system's impact is already extending far beyond Turkish waters. In a short time, ADVENT has become a sought-after solution for navies worldwide, with countries such as Pakistan, Indonesia, Ukraine, Nigeria, and most recently Malaysia adopting the system to enhance their maritime security. For these countries, the decision to integrate ADVENT was driven by its proven ability to adapt to diverse naval platforms, integrate advanced weapon systems, and support coordinated multi-platform operations. The feedback from these global naval forces has been highly positive, solidifying ADVENT's reputation as a reliable and versatile combat management system.

In the words of HAVELSAN's CEO, "ADVENT was designed to meet the evolving needs of modern navies, delivering unmatched operational flexibility and technological superiority." The system's versatility is key to its appeal. Whether integrating with large naval vessels like Offshore Patrol Vessels (OPVs) or smaller platforms such as fast-attack craft, ADVENT's modular design allows for seamless customization to meet the specific needs of any naval force. Furthermore, ADVENT's adaptability across different domains (naval, air, land) ensures that it can scale and evolve alongside emerging defense requirements.

In an era where maritime threats are evolving rapidly and unpredictably, naval forces and defense leaders face unprecedented challenges. To maintain a strategic advantage, it is crucial to deploy systems that are not only technologically advanced but also adaptable to the changing dynamics of modern warfare. ADVENT offers precisely this. It enables navies to operate as a cohesive force, ensuring real-time coordination and decision-making across platforms.

For the decision-makers, ADVENT represents a futureproof investment— one that delivers both operational superiority and the flexibility to evolve alongside emerging threats. With ADVENT, naval forces gain a cutting-edge solution that strengthens national security, enhances fleet interoperability, and positions them to respond swiftly and effectively to any challenge. This makes ADVENT an essential choice for those looking to stay ahead in maritime defense.

UADVENT offers enhanced situational awareness and real-time coordination that can decisively shift the outcome of a mission. The system's proven track record of seamless integration, scalability, and reliability makes it a sound long-term investment.

ALBANIA

Defense Minister Pirro Vengu presented the 2025 Defense budget proposal during a hearing with the Parliamentary Committee for National Security. Minister Vengu highlighted that this budget marks the largest investment in Defense in over two decades, aimed at advancing the modernization of the Armed Forces. The proposal ensures that reforms will lead to real operational readiness, improved conditions for military personnel, stronger civil emergency infrastructure, and economic growth through industrial development.

Minister Vengu explained that the budget will drive economic growth through a defense industry agenda, stating: "2025 will be the second year we meet NATO's commitment to allocate over 2% of GDP to Defense.The proposed 2025 budget for the Ministry of Defense totals 52.7 billion lek. Outlining the budget's main priorities, Vengu emphasized investment in human capital, modernization, and operational readiness. More than 50% of investments will go towards expanding capacities and modernizing equipment on land, sea, and in the air.

"This budget allows us to continue 21 ongoing projects, launch 8 new ones, maintain progress on 62 infrastructure projects, and initiate investment in 8 new facilities." - Minister Vengu said. A significant portion of the budget is dedicated to improving financial support for Armed Forces personnel, with salary increases benefiting 2,500 members, in many cases doubling their pay. The budget also includes a 1 billion lek allocation for the reserve force, which is expected to constitute one-fifth of the active Armed Forces by 2030. Additional funds from this budget will support the NATO Base in Kuçovë and the maintenance of "Black Hawk" helicopters.

Minister Vengu emphasized the aim to begin generating revenue through the Military Industry in 2025, with plans to enhance production capacities in Mjekës, Gramsh, and Poliçan, and to establish the Defense Industry Agency. The budget also allocates 300 million lek to Civil Emergencies, which represents a significant increase, according to Minister Vengu. Finally, the budget secures necessary funds for training, education, and exercises for military personnel, both domestically and internationally, with significant investment in the new campus of the Armed Forces Academy.

Naval Group expands strategic cooperation with Greek Industry and University of Patras at Euronaval 2024

On 5th November 2024, Naval Group signed several contracts with Hellenic companies on the Hellenic pavilion at the Euronaval exhibition, in coordination with the Hellenic Manufacturers of Defense Materiel Association SEKPY, in a continued commitment to enhancing Greece's defense and maritime capabilities.

Hosted at the Hellenic Pavilion, a focal point for maritime defense innovation organized by the SEKPY, these contracts underscore Naval Group's ongoing dedication to strengthening its collaboration with Greek industry and Greek Universities. The contracts cover the supply of equipment for the construction of both Greek and French Navies FDIs, and the preparation of the future organization for the maintenance in Greece of the FDI for the Hellenic Navy. A Memorandum of Understanding (MoU) was also signed with the University of Patras to reinforce our Research and Technology partnership.

Elevating Hellenic Industrial Participation: New Contracts and In-Service Support

Naval Group's robust Hellenic Industrial Participation (HIP) plan was initiated in 2022 for the FDI Hellenic Navy program and involves already more than 40 Greek companies for the production of the ships. Naval Group in coordination with its 100% Greek subsidiary Naval Group Hellas, is pursuing the integration of new Hellenic partners to the production of the ships and is actively preparing the future In-Service Support (ISS) organization of the ships in Greece.

It is in this frame that 5 Greek companies have signed contracts with Naval Group:

- SALAMIS SHIPYARDS, who is already a strong reference for the FDI programs with production of hull blocks both for Greek and French FDIs. Salamis Shipyards will contribute to the ISS of the ships through steelworks
- GENERAL SHIPPING for painting services
- COMPOSITE TECHNOLOGIES for component elements
- ALKYONIS for floor covering services
- LIVADAROS for insulation and lagging services.

"These new contracts with valuable Greek industrial partners, together with the ramp-up of Naval Group Hellas resources involving several Greek engineers, are new steps of the integration of the Hellenic industry in the Naval Group supply chain and of the transfer of know-how to Greek personnel. It paves the way to further cooperation, much larger than the sole FDI program" emphasizes Benoît Chapalain, CEO of Naval Group Hellas.

Fostering research and innovation: a MoU with University of Patras

Naval Group and Naval Group Hellas also signed a Memorandum of Understanding (MoU) with the University of Patras regarding R&D projects and repair solutions, strengthening future long term partnerships on innovative projects. This MoU confirms the interest of Naval Group to work with Hellenic R&D ecosystem, develop strategic coordination with Hellenic partners on innovative projects through European Defence Funds or through bilateral programs, and follow the MoU signed previously with DEMOKRITOS Research Center and with the Hellenic Naval Academy.



ALTUS LSA in EURONAVAL 2024

ALTUS LSA recently attended EURONAVAL 2024 in Paris. The event was a tremendous success with visitors showing great interest in our Products for Military Maritime applications. ALTUS had the opportunity to connect and further strengthen its bonds with plenty of clients / partners, such as MBDA, NAVAL Group and various officials from MoDs around the world exploring future collaborations and opportunities this event has opened up for them.

ALTUS LSA S.A. is excited to contribute to ForeSight Project, a groundbreaking initiative aimed at enhancing disaster risk management across Europe.

Led by THW (Germany), this project brings together experts from eight countries - including Bulgaria, Cyprus, Greece, Italy, the Netherlands, Switzerland, and Turkey to develop essential tools for emergency response in hazardous environments.

Project ForeSight – Improving last-kilometer navigation & transportation of emergency personnel, equipment and relief items in hazardous and challenging environments Project ForeSight (Horizon Europe Project 101168521), is holding its kick-off meeting in Bonn from October 29-31, 2024, marking a critical step toward advancing disaster response logistics. Led by the German Federal Agency for Technical Relief (THW), ForeSight brings together partners across Europe to develop cutting-edge tools that aid first responders in hazardous conditions.

ForeSight Project focuses on improving last-kilometer logistics, situational awareness, and navigation in low-visibility conditions like smoke, fire, or fog. These tools are designed to help deliver critical aid and equipment rapidly and effectively, especially in disaster scenarios like the recent floods and wildfires in Europe.

Extensive testing will ensure that these solutions align with responders' needs and meet ethical and legal standards, setting new benchmarks in disaster response.



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A site visit to Germany's flood-affected Ahr Valley underscored the urgent need for ForeSight's life-saving innovations in emergency response.

ALTUS LSA designs, develops and produces tailormade drone solutions for its customers addressing challenging high-end requirements of the international market.

ALTUS has already a significant customer portfolio that consists of major stakeholders in the Aviation and defense/security industry. Ongoing services and cooperations involve: NATO, OSCE, EMSA, Hellenic Army, Hellenic Navy, Hellenic Airforce, Hellenic Fire Service, Qatar Emir Air Force, Israeli Defense Forces, FRONTEX, Hellenic Police, Cyprus Police, Hellenic Ministry of Civil Protection, Hellenic Ministry of Agriculture, European Commission and many other.

Moreover, since mid of 2017, the company have been approved as a UAS training academy by the Hellenic Civil Aviation Authority, with registration number EL-UAS-TC-3.



Salamis Shipyards: Expansion of cooperation with Naval Group in the FDI program

Salamis Shipyards has expanded its collaboration with Naval Group in the FDI program by signing a new 6-year Framework Agreement for the Follow-On Support of the FDI Belharra frigates. This agreement was formalized on November 5, 2024, during the EURONAVAL 2024 defense exhibition in Paris.

The contract focuses on the maintenance and repair of the frigates, covering the hull, superstructure, and all related systems, including their piping networks. Additionally, it outlines work that may be required for future upgrades or modifications to the frigates.

Dr. Georgios Koros, the CEO of Salamis Shipyards, expressed his pride in this extended cooperation, emphasizing that it confirms the high standards and capabilities of the Greek shipbuilding industry. He noted that Greece's participation in the FDI program marks a significant milestone for the country's naval industry, as this is the first time Greece is involved in such a major defense project, both for its own Navy and for other countries.

The Salamis Shipyards also recently extended their cooperation with Naval Group to include the construction of the third French frigate in the production line, following the third Greek FDI frigate, *Formion*.

The partnership initially began after a two-year audit by Naval Group, and the shipyards have been involved in the construction of multiple components for the FDI frigates, including hull sections and superstructure blocks.

This ongoing collaboration underscores the transfer of cutting-edge technology to Greece and the growing expertise of Salamis Shipyards in handling complex and high-tech naval projects.

Salamis Shipyards has successfully completed and delivered the first two Island-class patrol boats to the Hellenic Navy, underscoring the capabilities of Greece's shipbuilding industry to undertake complex defense projects. These initial deliveries mark significant progress, with the remaining two Island-class patrol boats expected to be delivered by the end of December 2024. This project, which involves the repair, reactivation, and upgrade of the patrol boats, exemplifies Salamis Shipyards' advanced technical expertise and their commitment to meeting rigorous quality and scheduling standards.

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Greece Enhances its Hawk Fleet with Purchase of 35 UH-60M Black Hawk Helicopters from Lockheed Martin

The U.S. Government has awarded Sikorsky, a Lockheed Martin company, a Foreign Military Sale contract to provide 35 UH-60M Black Hawk helicopters to Greece. The deal includes 35 aircraft for the Hellenic Army as well as personnel training, training equipment and an initial provisioning package, which will significantly improve self-defense and bolster interoperability within the nation and with NATO allies.

"Our partnership with Greece spans decades, and we are pleased to see the nation's continued trust in Sikorsky helicopters as Greece will benefit from an integrated Hawk family of aircraft supporting national security and humanitarian missions," said Hamid Salim, Sikorsky vice president of Army and Air Force Systems. "The Black Hawk helicopter offers Greece a range of operational capabilities and a global ecosystem of more than 5,000 Hawk aircraft operated by 36 countries around the world. "The newly contracted UH-60M Black Hawk helicopters are an additional testament for the long-standing relationship Lockheed Martin shares with Greece, its Armed Forces and defense industries for over 80 years," said Costas Papadopoulos, international business development executive director for Greece at Lockheed Martin. "The Black Hawk helicopter is the workhorse of multi-mission medium lift aircraft and will enable Greece to perform key operations in the region.

These helicopters will join Greece's upgraded F-16Vs, new MH-60Rs, existing F-16s, C-130s, and S-70Bs, as well as future F-35s. This enhanced fleet will provide Greece with extended capabilities for air, land, and sea operations, contributing to the nation's security for years to come." With its existing S-70B fleet and newly acquired MH-60R maritime helicopters for the Hellenic Navy, Greece will operate several variants of the Hawk family and benefit from the operational and sustainment advantages of fleet commonality. The Black Hawk has flexibility to conduct a variety of operations at greater ranges and in the most challenging environments, increasing survivability and overall effectiveness for 21st Century Security® missions.

Building on Lockheed Martin's partnership with Greece of more than 80 years, the company stands ready to support Greece and deliver capabilities such as F-35s, F-16s and C-130s, in addition to Hawk aircraft that will increase the country's deterrent capabilities and interoperability with allied nations.

Greece will be the 12th European country to operate the Black Hawk helicopter. In 2024, the U.S. Government has awarded Sikorsky contracts to manufacture and deliver a total of 84 UH-60M Black Hawk helicopters to countries in Europe, Asia, the Middle East and South America, further proving the Black Hawk is the premier multi-role utility helicopter around the globe. On Oct. 23, Sikorsky also received UH-60M contract awards to grow the Black Hawk fleets in Austria, Brazil, Sweden and Thailand. In July, Sikorsky received contracts for Black Hawks in Croatia and Jordan; in June, Romania also added to its fleet of S-70 Black Hawks, which share the same pedigree as the UH-60M.



Interview with the Deputy Minister of National Defence Mr. Giannis Kefalogiannis



The Greek Ministry of National Defence has outlined an ambitious restructuring of the Hellenic Armed Forces, dubbed "Agenda 2030," with the objective of bringing Greece's military into a new era of advanced capabilities and resilience. Prime Minister Kyriakos Mitsotakis emphasized that this modernization drive is central to the nation's strategy for a robust Greece, capable of meeting escalating security and stability challenges in the Aegean and Eastern Mediterranean.

"Agenda 2030" represents a multi-faceted approach, encompassing significant acquisitions of advanced weapon systems and bolstered international alliances, particularly with France and the United States. This modernization effort also considers Greece's complex relations with neighboring Turkey, aiming to enhance Greece's deterrent stance and security readiness.

In an exclusive interview with Greek Defence News, Deputy Minister of National Defence Mr. Giannis Kefalogiannis shared insights into these recent initiatives and discussed the progress on key defense reforms under the new policy agenda.

What are the Hellenic Armed Forces' transformation priorities? Could you please elaborate on the priorities set for the modernization and digital transformation of the Hellenic Armed Forces and how these align with Greece's Defence Policy strategic goals?

In an ever-changing international environment, with armed conflicts in our region and technology evolving rapidly, determining means and ways of conducting military operations, the Greek Armed Forces must move into a new era. We call this strategic approach "Agenda 2030", through which we adopt a set of bold reforms that will shape a modern Defense Doctrine. With an emphasis on interdisciplinary, the utilization of domestic innovation, the upgrading of military training and the creation of new structures, such as indicatively in the field of cyber security and the use of autonomous systems. Especially in terms of digital transformation, we have proceeded to set up the joint IT body that brings together IT forces from all branches, with the aim of optimal adaptation prevention and early response of the digital infrastructures of the armed forces to cyber security challenges as well as achieving a unified doctrine of utilization and integration of artificial intelligence and big data analytics in the operation of the Armed Forces.

Are you optimistic about the future of Greek-Turkish relations? Given the historically complex relationship between Greece and Turkey, do you see any potential for a more stable and cooperative future between the two countries?

There are significant differences with Turkey in the way we approach various issues. We have no illusions about what we can and cannot achieve. We wish to maintain the climate of recession and the positive dynamics that have developed in Greek-Turkish relations recently. At this juncture, we must adopt a standard code of communication and behaviour through a road map that will improve our bilateral relations on a more solid basis. We are not discussing just for the sake of discussing but to resolve what we recognize as our only differences, namely the delimitation of the Exclusive Economic Zone



and the continental shelf. Failing that, the second-best option is to remain helpful neighbours, both agreeing to disagree.

How do you assess the current security situation in Ukraine, the Balkans, North Africa, and the Middle East? What role can Greece play? What role do you envision for Greece in contributing to regional stability?

Greece constitutes and is treated as a pillar of stability in Europe and the Eastern Mediterranean. Through a principled foreign policy, it declares itself present in all major issues of the region. From a position of principle, it supported Ukraine from the first days of the war and continues without asterisks in the same course of providing military, diplomatic, defence and humanitarian support. Our country also approached the Israeli-Palestinian conflict with corresponding principled positions. We mediate, respecting our strategic alliances with Israel and also important Arab countries, such as Egypt, amid an objectively highly complex situation. We have accumulated a significant international capital of credibility that allows us to talk to all parties involved, knowing that no second thoughts are hidden behind our attitude. We will keep working thoughtfully and methodically for this Greece of reliability and selfconfidence in facing national, regional and global challenges.

What are the long-term procurement program priorities for the Hellenic Army, Navy, and Air Force under the current defence budget limitations?

Despite the difficulties of the times, the national armament program is being implemented based on longterm planning by the general staff. We are committed to ensuring our Armed Forces have the material resources to carry out their mission. We can satisfy the military leadership's requirements through targeted prioritization to ensure our country's deterrence capacity. I mention the future purchase of the most modern aircraft in the world, the F-35, the construction program for 4 BELHARA frigates, the modernization programs of the MEKO frigates, the Roussen missile boats, and, of course, our submarines, which will immediately begin to be implemented in Greece. We should not omit Greece's participation in the design and subsequent construction of the new CONSTELLATION frigate, our involvement in the Eurocorvette program and, of course, the creation of an impregnable missile wall in the Aegean.

The Hellenic defence industry is facing various challenges, especially in terms of development. How is the Ministry of Defense addressing these issues?

We lack - and this is what we are trying to fix - the institutional framework and the mentality that will bind all of us - political system, military leadership, military and civilian educational institutions, research centres - to a logic of production of defence products in Greece. The question is, on the one hand, how we will increase the percentage of domestic industrial production and in the support, maintenance technology modernization of existing and future weapons systems and on the other hand, how will we effectively integrate the ecosystem of private Greek companies that produce technology and innovation into the current and future needs of the Armed Forces. I don't like zeroing. We indeed have a troubled state defence industry for which a consolidation plan has been launched.

However, we also have more than 100 Greek companies related to the defence industry that employ 20,000 workers. The next day of the defense industry can only be shaped with their active partnership. We want to integrate and orient this ecosystem to give us original solutions that will meet the needs of the Armed Forces both at the production level and maintenance and support of weapon systems. We have the human resources to design intelligent and cheap weapon systems — from drones to robotics and artificial intelligence applications. And yes, we can be exportoriented and achieve economies of scale in such cases.

The United States has repeatedly demonstrated its commitment to supporting the modernization of the Hellenic Armed Forces through the ongoing US-Greece defense collaboration. How do you assess the status of Greek–U.S. military cooperation, and what are the key areas of focus for the future?

Our relations with the U.S. are at an all-time high and will continue to be so because they have "structural depth." They are based on a shared understanding and alignment of interests on the conditions for stability and security in our wider region and the joint effort to maintain an international order based on international law. This is the value base from which our agreements for defence cooperation and strengthening of our weapons systems derive.

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"Agenda 2030- Hellenic Armed Forces Digital Transformation in the Age of Artificial Intelligence War"

5TH Athens C4ISR International Conference 19-20 November 2024, War Museum, Athens, Greece





GENERAL DYNAMICSEuropean Land Systems



































Participating Countries



"Agenda 2030"

Greece is set to have the most formidable Armed Forces in its history by the conclusion of the Agenda 2030 initiative, according to Minister of National Defense Nikos Dendias who has emphasized the strategic reforms and investments driving this transformation. "We're not just spending; we're reforming," Defence Minister has said. "The Agenda 2030, which the Greek Prime Minister has called the most comprehensive reform of the Armed Forces in our nation's history, it will elevate our Armed Forces into the 21st century and beyond, both in doctrine and through innovation." Greece dedicates over 2% of its GDP to defense, an investment he considers vital for the nation's security. The comprehensive reforms under Agenda 2030 will give Greece the strongest Armed Forces in its history, playing a key role in enhancing regional stability.

The aim of Agenda 2030 is to create an integrated security and defense system that not only protects Greece's national interests but also strengthens our international standing and contributes to economic growth. The plan is structured around six key pillars:

- 1. Reorganization of Armed Forces structure
- 2. Continuation, acceleration, and optimization of armament programs
- Modernization of conscription and reserve models
- Enhanced support for permanent Armed Forces personnel
- 5. Promotion of defense diplomacy
- Strengthening, restructuring, and upgrading of the national defense industry, including the creation of a defense ecosystem to foster innovation and technology, and the
- 7. establishment of the Hellenic Innovation Center.

The Greek government, recognizing the heightened strategic importance of the Hellenic Air Force, has developed a comprehensive modernization plan within the framework of the "2030 Agenda." This initiative is essential for enabling the Air Force to maintain and strengthen its pivotal role in national defense.

The program focuses on the homogenization and modernization of the Air Force's fleet, ensuring interoperability and efficiency across different aircraft types. Additionally, it aims to enhance the living conditions and support systems for Air Force personnel, acknowledging the vital contributions they make both in national defense and in service to Greek society. The Hellenic Air Force will acquire 200 state-of-the-art aircraft by 2030, gradually removing from operation third- and fourth-generation combat aircraft.

These initiatives will lay the foundation for a robust, modern defense capability, enabling Greece to address current and future security challenges effectively. Minister of National Defense Nikos Dendias has recently outlined the strategic priorities for the Hellenic Navy and defense capabilities at the recent roundtable discussion, highlighting several key initiatives under Agenda 2030.

Greece is advancing with its Belh@rra frigate program, with plans for four ships. These include the integration of strategic weapon capabilities on three of the vessels, specifically cruise missiles for strategic strikes. Greece is also working on its next-generation submarines, though their delivery may span up to twelve years. Alongside new acquisitions, efforts to modernize existing vessels like MEKO frigates are underway. Dendias emphasized the need for a modern, operational fleet, noting that maintaining outdated ships only drains resources without delivering real combat readiness. Acknowledging the strategic significance of the Aegean, Dendias discussed a shift in Greece's defense doctrine. Instead of relying primarily on air forces for anti-aircraft defense, Greece plans to establish a layered anti-aircraft shield that will cover both the mainland and its islands using mobile units and land-based missile systems.

Addressing the increasing use of UAVs in modern warfare, Dendias highlighted the development of the "Centaur" anti-drone system. This system has already been tested successfully on mobile bases in the Eastern Aegean and on Greek frigates in the Red Sea. "Centaur" will equip the Navy's MEKO frigates and eventually play a central role in Greece's anti-drone defense network, covering critical areas and assets across the Armed Forces. These initiatives are part of Greece's comprehensive approach to strengthening its defense capabilities, ensuring deterrence, and safeguarding national interests amid regional challenges.





Hellenic Armed Forces Digital Transformation in the Age of Artificial Intelligence War

Interoperable network and digitisation give the edge in multi-domain operations (MDO). A real-time common operating picture enables armed forces to act earlier, faster, autonomously and more precisely. Rheinmetall, an expert in digitalization and system integration with a vast network of partners, provides applications taking forces to the next level.

Rheinmetall has created the model of a "Digital Brigade" to derive required capabilities from battlefield scenarios and demonstrate the benefits of digitisation. Real-world scenarios and the real needs of the users drive the concept.

The digitalization enables armed forces to sense, connect, automate & dominate the battlefield.

Interoperability between different forces is more important than ever, therefore a complete eco-system of solutions is needed.

Based on a holistic view of military capabilities of command and control, reconnaissance, effects and combat support and taking into account the latest hardware and software solutions, Rheinmetall is generating capability applications - "apps". The Digital Brigade Demonstrator includes both production-ready systems and minimum viable products as well as new technologies to demonstrate operational benefits and the wide range of operational possibilities.

To bring these apps into our customers' infrastructure, a key connecting technology is required: TACTICAL CORE of our partner blackned. This state-of-the-art middleware enables end-to-end encrypted access to the tactical information of a digitised brigade and is certified by the German Federal Office for Information Security (BSI) for handling NATO restricted data. By providing access to battle management system, sensor and effector data based on an open architecture, the TACTICAL CORE can be seen as an app store for military platforms. Software libraries enable the creation of any new functions and applications.

In times of intensive use of electronic warfare systems, secure, robust and redundant communication is essential. The TACTICAL CORE is able to handle several communication channels, e.g. UHF, VHF, 5G, and satellite communication at the same time and chooses automatically the best communication device to transmit the data to the recipient.

The common information space allows us to improve the sensor-to-shooter chain on our platforms. Through the TACTICAL CORE, this technology creates additional value by securely disseminating relevant data across all platforms. Al-based target identification and classification can be used to accelerate the sensor-to-shooter chain, even across multiple platforms.

Interoperable network sharing real-time information

Artificial intelligence supports and decision-making accelerates the process for military operations. This particular technology enables military commanders to react immediately to operational changes. By analysing geo data and the monitored situation on the battlefield, the system automatically provides positions to achieve the mission objective and to eliminate potential risks. Command selects according to the strategic approach and hand over information directly to his team.

In current conflicts, the use of drones and other unmanned systems has become indispensable. The use of these systems has to be optimised and automated, as must the defence against these UxV systems.

With the Unmanned Control Service, Rheinmetall has developed software that makes it possible to operate a wide variety of unmanned aerial vehicles, ground vehicles and watercraft. Operation can be carried out using individual control units, right up to full integration into the armoured platforms.

With the help of the Unmanned Control Service, a high-end military service is available for controlling all UxVs and loitering munitions.

In order to achieve digital superiority on the battlefield, new tools and processes are needed as soon as the products are created. Development cycles can be massively shortened by using artificial intelligence and digital twins during development.

New sensors and effectors, as well as operating concepts, can even be tested realistically before they are available as a production-ready system.

To survive in the age of the war of artificial intelligence, digital superiority is needed.



Implementation of artificial intelligence



Swarming and unmanned teaming

DefSecIntel Solutions AI-Enhanced Mobile Surveillance Systems Advancing Situational Awareness for Efficient C2 Data Gathering and Decision-Making

The evolving security landscape presents new challenges for border protection. The variety of EU's land and coastal borders face different surveillance challenges, complicating the detection of threats like trafficking and smuggling. These threats vary in origin, frequency, size and impact. FRONTEX aids Member States and Schengen countries by monitoring external borders and enhancing situational awareness. The European strategy for integrated border management emphasizes the need for interoperable, adaptable surveillance systems for both sea and land borders.

Defence missions face similar challenges on how to gather relevant C2ISR data efficiently and how to combine various information streams from multi-sensor sources for enhanced situational awareness for improved decision making. This can be done by incorporating advanced technologies, like AI-enhanced systems.

To significantly expand beyond existing surveillance capabilities for defence and border security missions, mobile and efficient solution with multi-sensor surveillance system (including a drone) ensures rapid relocation and reorienting of the surveillance capabilities to respond to changing situations.

Edge computing has revolutionized object detection and classification, facilitating robust data sharing. Integrating multiple sensors and effectors increases system complexity, and AI plays a crucial role in simplifying these tasks for operators. While humans excel at single-sensor detection, our AI-assisted technology integrates multiple sensors, increasing performance and autonomy, reduces repetitive tasks and expands the surveillance and observation range.

Estonian defence and security technology company **DefSecIntel Solutions** is developing and manufacturing mobile autonomous surveillance systems which are equipped with Al-assisted C2. We provide Al-powered systems for European security.

These platforms visualize and distribute data through robust and secure channels to end-users, battlefield management and defence/security information systems. Solutions address the challenge of information gathering, filtering, and distribution across military, border security, and internal security missions. The equipment, already operational in military and border security applications, includes mobile surveillance systems equipped with a variety of sensors and integrated UAVs, providing widerange, all-weather, day and night surveillance with Albased edge-computed analysis for detection and classification.



Main products are SURVEILSPIRE - mobile autonomous situational awareness system, vehicle-based system CAIMAN, cutting-edge AI-powered C2ISR software that enables fully autonomous operations with automated area scanning, threat detection, classification, and verification by the operator, and EIRSHIELD C-UAS system providing air defence with multiple detectors and effectors. Several more cutting-edge designs are in development.

These systems also serve as information gathering points significantly enhancing situational awareness.

Our combat-proven systems are innovative, developed with direct end-user feedback.

Systems are developed for different security and defence missions, and suitable for all weather conditions and terrain.

Military and security end-users are freedom defenders, for whom comprehensive Alenhanced mobile autonomous surveillance systems provide advanced Situational Awareness and improved decision-making.



Interconnected mobility for the multi-domain battlespace

The performance of modern military vehicles is defined through four main sets of characteristics:

- Mobility, defined as the ability to move forces on a tactical, theater, and strategic level.
- Protection, for crew and mission payload, covering the whole range of threats.
- Effect, according to the mission role. This includes firepower for offensive action and selfdefense.
- Connectivity, as a more recent addition to the classic "triangle". Efficient command and control and real-time situational awareness are crucial factors on today's battlefield.

General Dynamics European Land Systems (GDELS) addresses each of these factors. Military mobility is the company's core competence, reflected in all of GDELS' product families. With more than 12,000 vehicles delivered, the PIRANHA is the most successful family of wheeled armored vehicles in the western world. Its latest generation is available in 6x6. 8x8 and 10x10 configurations, depending on payload and volume requirements. The PANDUR EVO is a compact 6x6/8x8 armored vehicle with a protected drivetrain and forms the mainstay of Austria's medium mechanized infantry. The EAGLE family of tactical 4x4 and 6x6 vehicles is in use with several European countries. While wheeled vehicles offer a particularly high mobility and can easily be deployed strategically, the ASCOD is designed as a multi-role tracked vehicle family, with every variant staying below the weight limit of MLC 50. Wherever water bodies or dry gaps hamper movement, the GDELS portfolio of mobile bridge systems comes in.

Within their respective weight classes, each GDELS vehicle family offers an exceptional level of survivability, including highest mine protection and scalable protection against ballistic, fragment and IED threats. Due to their open, agnostic architecture, a broad variety of weapon systems and customized mission equipment can be integrated, the offer ranging from self-propelled artillery, light/medium tanks and IFVs to APCs, reconnaissance and various support vehicles.



© GDELS- Connecting Every Sensor

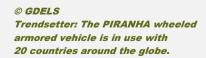
The highly complex communication challenges faced by modern combat vehicles, with a need to ensure robust connectivity across a contested and multi-domain battlespace, are addressed through the MESHnet family of products from General Dynamics Mission Systems. It has evolved to meet these very demands, supporting operators through a flexible open architecture and a modular approach.

The MESHnet product line provides a unified combat vehicle Communication and Information Systems (CIS) solution built on a suite of advanced elements. It ensures efficient, reliable data transmission with minimal latency, while adapting to meet the specific integration needs of individual customers, including considerations for size, weight, power, and cost.

MESHnet's open architecture works seamlessly with the different radios, hardware, and software that operators deploy. The product line includes smart displays and computing hardware to view live vehicle camera feeds, host command and control (C2) software, and integrate complex vehicle subsystems.

By adhering to open standards, such as those set by NATO, MESHnet enables communication across multinational fleets.

Additionally, MESHnet leverages Artificial Intelligence (AI) technologies that empower soldiers to make faster, more informed decisions. Examples include automatic target acquisition and real-time voice-to-text translation in any language.





Advanced telecommunication systems as a key factor in the information superiority of the Armed Forces

Historically, the capabilities of the Armed Forces telecommunications have been recognized as a critical factor in operational superiority against the enemy, as they ensure the acquisition of a clear operational picture by commanders and the timely transmission of orders to the commanded. Both secure, uninterrupted and as fast as possible communications between friendly forces, and blocking, delaying or intercepting enemy communications have played a decisive role in the outcome of military conflicts in the past.

This significant role of telecommunications is becoming increasingly critical in the age of digital technologies, network-centric warfare, and unmanned systems. Cybercentric warfare is based on the effort to gain an information advantage and convert it into a competitive advantage in the field through the seamless networking of geographically dispersed forces.

Intracom Defense (IDE) recognizes that reliable and secure broadband wireless communications which enable real-time transmission of voice, data and video, to and from the field of operations are critical to decision support and transmission of commands. For this purpose, it develops a wide range of products and integrated tactical telecommunications solutions with these characteristics., which are already operating on various land and sea platforms, in fixed or mobile, short, medium and long range applications.

More specifically, IDE's telecommunication products are based on IP (Internet Protocol) technology, supporting all network services over IP. They use Software Defined Radio (SDR) architectures, which offer the advantage of being able to implement different wireless communication protocols on the same hardware, allowing seamless and cost-effective equipment upgrades.

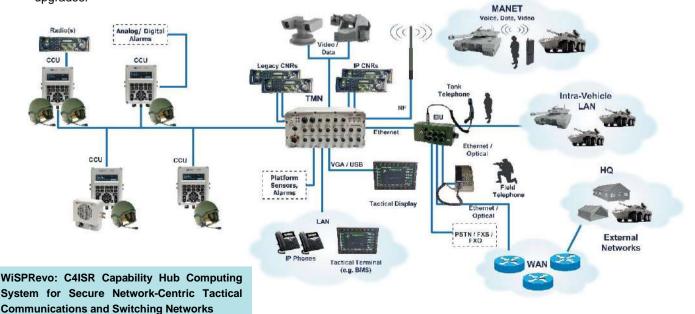
They implement multiple security levels: at the communication security level (ComSec) they use strong data encryption algorithms, while at the transmission security level (TranSec) they implement a broadband frequency hopping mechanism to achieve immunity against electromagnetic interference. The devices themselves are certified based on military standards for operation in a wide range of environmental conditions (temperature, humidity, dust, impacts, vibrations, etc.) while international quality standards are applied to their development and production.

The range of these products includes:

 WiSPRevo, a complete Communication & Information System for land, naval and other military applications. The main components of WiSPRevo are the CCU user terminals and the TMN multifunction device that can be combined together to create solutions that meet specific communication requirements for a wide range of different platforms.

CCUs are the basic intercom system of a platform that allows crew members to communicate with each other. In addition, they provide interfaces to regular radios to access networks. interfaces to connect loudspeaker units (LSUs), and interfaces to support Ethernet devices and digital/analog The advanced Dynamic Noise Reduction (DNR) provided by the system offers high-quality voice communications guarantees maximum speech intelligibility in high-noise environments, ensuring improved operational capability of operators under prolonged combat conditions.

The WiSPR Tactical Mission Node (TMN) is a modular multi-service platform, fully compatible with CCU user terminals. The TMN incorporates an Ethernet Switch & IP router to support IP connectivity, IP Radios and Local Area Networks, an analog radio gateway to support old type radios along with Wireless LAN (WLAN) capability.



 Spart@n-H, an advanced wireless voice, data and video communications system with high transmission rates based on IP (Internet Protocol) technology which supports all network services such as videoconference, Voice over IP (VoIP), email, fax, internet, etc.

Spart@n-H creates a wide-area tactical wireless network, providing multi-Mbps data rates, suitable for Battalion-to-Brigade communication interface. In addition, its ability to operate in both terrestrial and maritime environments makes it suitable for communications infrastructure capable of supporting cross-industry operations.

 Advanced Communications for Unmanned Air Platforms, IDE also develops advanced secure radio communications for its Unmanned Air Platforms.

IDE's ATTALUS Air Platform employs a jam-resistant and encrypted communication network, based on Mobile Ad-hoc NETworking (MANET) principles, which enables swarming operations and handover of the mission control among multiple operators, including Forward Observers. The ATTALUS system ground station can be connected to higher-echelon C4ISR systems through IDE's Spart@n-H broadband communication links.

IDE's LOTUS UAV for ISR applications, employs state of the art IDE's UAV Point to Point & Point to Multi Point products for the C2 and ISR links based on NATO standards.





Spart@n-H: Broadband radio equipment for secure network-centric tactical communications using SDR technology

Chora: Leading the Future of Electronic Warfare with Cutting-Edge Surveillance Solutions

Founded in 1994, Chora stands as a leading expert in Electronic Warfare (EW), delivering mission-critical surveillance solutions for land, sea, and air applications. With over 30 years of battle-proven expertise, Chora's success is built upon three fundamental pillars:

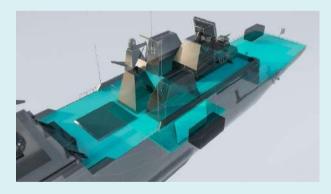
- A World-Class Team of highly skilled engineers and developers, renowned for their boldness and dedication to innovation. All personnel hold security clearances, ensuring the highest standards of trust and confidentiality.
- Commitment to Innovation: Chora reinvests a substantial portion of its revenue into research and development, fostering continuous innovation.
- Customer-Centric Approach using the feedback of operators in the field as a primary source of inspiration for product development. This collaborative approach ensures that Chora's solutions are tailored to address real-world operational challenges.

$\mathsf{CHOR}\boldsymbol{\Delta}^{\!\scriptscriptstyle{(\!0\!)}}$



Chora's surveillance solutions prioritise mobility, utilising compact and lightweight hardware components that all fit into a very small space such as a standard-sized backpack. These systems can be deployed within minutes on any platform, making them ideal for rapid relocations. Manufactured in Denmark, Chora's tactical and strategic solutions are distributed globally through its subsidiary in Germany, a network of local distributors, and a select group of trusted partners. As a reliable and agile partner, Chora plays a critical role in supporting the operational success of today's intelligence forces and is poised to remain indispensable for the missions of tomorrow

Maritime force strengthened by Mission modularity



Denmark has been at the forefront of naval innovation for many years. The Royal Danish Navy was the first to adopt advanced modular capability with the STANFLEX concept (active service from 1989), which has since inspired the world's leading navies to incorporate varying degrees of modularity in almost all new surface combatants and patrol ships.

The time has come to rethink modularity.

In collaboration with the Royal Danish Navy and in dialogue with operational naval staff and leading ship designers and equipment suppliers, SH Defence introduces The Cube $^{\text{TM}}$ System.



With The Cube™ System, any Naval organization can turn any Coast Guard, SAR and Naval ship into a future-proof multi-mission platform with plug-and-play modules and the handling system to set them into operation.

The Cube™ is a system enabling the integration of capability modules based on standard ISO container sizes and standardized interfaces with shipboard physical, data, and services architectures.

It enables those systems to be rapidly installed, deployed and removed, and for them to be moved around a modular space so that each module is accessible to its operators and maintainers and to the services and capabilities that need to be operated.

One of the most significant benefits of the degree of modularity enabled by The Cube™ System relates to the management of obsolescence and future-proofing. As the systems contained in a capability module become obsolescent, they can be upgraded or replaced while the host platforms remain available for continuous operations.

The future of Naval power is Adaptable and interchangeable mission modules

ECHODYNE

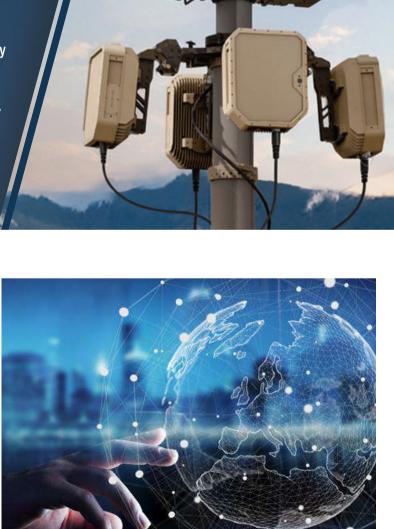
Echodyne is a U.S. designer and manufacturer of advanced radar solutions for defense and national security applications. The company's proprietary metamaterials electronically scanned array (MESA®) architecture is a rare breakthrough in advanced radar engineering. Leveraging an innovative physics-design approach, Echodyne's MESA radars use standard materials and manufacturing processes to shatter unit cost barriers for high performance radar. The result is a solid-state, low-SWaP, exportable, commercial radar with advanced software capabilities that delivers superior precision, unparalleled data integrity, and exceptional situational awareness. With leading positions in counter-UAS, force protection, base security, and portable ISR, Defense Agencies and Suppliers rely on Echodyne radar for extraordinary accuracy and consistent, reliable operation.

For more information, please visit: Echodyne.com.











system integration company, operating internationally with its main offices in Athens. The company has more than 30 years of operation in the Defence and Security sectors, where it specializes in the specification, design, development, integration, installation, testing and followon support of Tactical Data Links, Interoperability Systems, Integrated Mission and Command & Control systems, as well as Surveillance Solutions.

SCYTALYS' Interoperability solutions ensure the generation of the Common Operational Picture, improvement of Situational Awareness and Domain Superiority, through secure and accurate exchange of information between all participants, for the Armed Forces' Network Centric Operational environment.

THEON secures \$50 million of new orders and increased Soft Backlog as the new IRIS Thermal Clip-On System gains momentum

- New order intake/ increased soft backlog of c.\$50 million in the first week of November
- Strong continuous flow of sales across US, Europe, and Middle East
- Uplift in sales supported by launch of new product IRIS, setting a new benchmark for a thermal imaging clip-on system
- Initial IRIS orders currently span three NATO countries and two in Middle East

THEON INTERNATIONAL PIc (THEON) announced a boost in order intake/ increase in soft backlog for November, of approximately \$50 million across the US, Europe, and Middle East markets. This uplift in sales is attributed to the company's most successful product families of Night Vision Goggles and particularly the NYX binocular family, as well as orders for its new groundbreaking product, the thermal imaging clip-on system IRIS.

"We're thrilled to see such a positive market response to our latest innovation, IRIS," said Christian Hadjiminas, CEO of THEON. "This thermal clip-on is a gamechanger for both our existing customers and new markets."

The IRIS thermal clip-on has garnered substantial interest, with orders already placed by three NATO countries and two Middle East ones. This early adoption underscores the product's potential to set a new benchmark for a thermal imaging clip-on system worldwide for military and security forces. THEON's IRIS is fully compatible with other third-party monocular or binocular systems, but its image, as tested internally and externally, is fully optimized when used with THEON's night vision products. The new thermal clip-on IRIS allows existing end users, using THEON's NYX, Mikron and Argus night vision systems, to seamlessly add via IRIS a thermal image overlay on the existing night vision image. In essence, it turns any monocular or binocular product into an advanced fused system. Moreover, IRIS, in its most advanced configuration, can, in addition to the thermal image, also project Augmented Reality information and supports connectivity with existing Battle Management Systems such as ATAK. This compatibility effectively transforms monoculars and binocular products into fused systems, offering enhanced situational awareness in challenging environments.





© THEON - IRIS seamlessly on top of a Mikron binocular

"With over 180,000 THEON's night vision monoculars and binoculars sold globally, we're uniquely positioned to capitalize on the growing demand for advanced fusion of night vision systems with thermal imaging solutions, bundled with or without AR capabilities" added Philippe Mennicken, Business Development Director. "The IRIS represents a significant growth opportunity, with a valued proposition attractive to new and existing customers."

This is why THEON, in parallel with ORION, its new most advanced dedicated fused binocular, which was also recently launched, expects the IRIS to drive substantial sales growth, even with a price tag higher than the price of its night vision binoculars but remaining still, less expensive than the top-notch option of ORION dedicated fused binocular.





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Digitalisation in Defence

in communications, Advances remote sensina. data analytics, and networking have fundamentally reshaped the battlefield environment and the nature of warfare. Digitalisation enables a real-time view of the battlefield, enhances command and control, and allows precise coordination of dispersed weapon platforms. Today's warfare relies on Integrated Joint Operations, and the interoperability offered by digitalised systems enables operational flexibility in deploying combat elements. Command and control can now be exercised laterally, not just through traditional vertical structures. These digital technologies empower commanders to accelerate decision-making and swiftly adapt to emerging situations, offering flexibility in troop deployment and streamlined data processing.

The cornerstone of battlefield digitalisation is the creation of a C4I (Command, Control, Communications, Computers, and Intelligence) system architecture, which is grounded in a clear military strategy, a unified operational doctrine, and a structured force configuration. Complete digitalisation is a progressive process that will mature over time. This system will ultimately deliver precise, real-time combat support information to the Chief of Defence Staff (CDS), Theater Commanders, Task Force Commanders, and other command levels. Service Chiefs and heads of support functions—such as supply, transport, ordnance, equipment, and maintenance—will also benefit from this digital infrastructure.

Establishing a secure, end-to-end communication infrastructure is crucial for a digitalised battlefield environment. The network should integrate communication resources across the services and agencies, including military and commercial satellite communications, contracted communication services, mobile networks, and other deployable networks. The battlespace must be thoroughly monitored with sensors-including thermal, infrared, sound, and electromagnetic—paired with surveillance systems like aerial photography, satellite imagery, reconnaissance platforms, and Unmanned Aerial Vehicles (UAVs). Miniaturised sensors and redundant processing systems can be placed on various platforms such as spacecraft, UAVs, aircraft, ground vehicles, ships, and individual soldier systems. The diversity and quantity of sensors and information sources create a fusion of data, a critical component for situational awareness and information warfare.

The electromagnetic (EM) spectrum is a key factor in future operational-level conflicts, representing a new domain for warfare. Cyber activities now converge with the EM spectrum, which encompasses surveillance, electronic warfare, and high-energy beam applications. Cyber-Electromagnetic Activities (CEMA) are increasingly vital in integrated and digitalised environments, as they enable comprehensive control over these new dimensions of modern warfare.





The impact of Artificial Intelligence on the defence sector

Rising geopolitical tensions require military organizations and the defense industry to modernize all facets of equipment and operations to meet the demands of contemporary armed conflict. Consequently, no major player within the defense supply chain can afford to overlook any layer of the Al value chain, though they should prioritize specific layers based on strategic needs.

For original equipment manufacturers (OEMs) and prime contractors, investments should focus on human-Al interaction, decision-making, and motion, with additional exploration into the creation layer. The human-Al interaction layer is particularly vital, as it involves technologies like conversational Al, brain-machine interfaces, sensory Al, and computer vision.

The defense sector operates under some of the strictest manufacturing standards across industries, making computer vision essential for automating and enhancing quality control throughout the production process. Investment in Al-driven decision-making can further improve manufacturing by enabling precise planning and forecasting of supply, demand, and production timelines. Meanwhile, advancements in motion will support automation in manufacturing and logistics.

With the advent of the Revolution in Military Affairs (RMA), terms like information operations, digitisation, and net-centric warfare have become integral to military terminology, all falling under the broader concept of Information Warfare (IW). These concepts, and their role in modern warfare, have garnered significant interest from military communities worldwide. Net-Centric Warfare (NCW) is being implemented in a phased, progressive manner, starting with the conceptualisation and development of network-centric systems.

Net-centric warfare greatly enhances capabilities in surveillance, reconnaissance, target acquisition, weapon engagement, intelligence sharing, command transmission, and Planning, Scheduling, and Decision Aid (PSDA). It enables commanders to deploy and coordinate various battle groups and their elements in the most tactically advantageous way, guided by the principles of Information Warfare.

The capabilities of AI technologies are advancing at an increasingly rapid pace, marked by unprecedented development and the widespread availability of powerful tools, including generative AI. These emerging technologies can now produce complex text, computer code, and realistic images and audio at a massive scale, often indistinguishable from human-created content. It is essential for NATO to adopt and leverage these technologies wherever applicable and as swiftly as possible. NATO's 2021 AI Strategy outlines a Strategic Vision with four main Aims and six desired Outcomes. Within this framework, NATO Allies have also endorsed six Principles of Responsible Use (PRUs) for AI in Defence: Lawfulness, Responsibility and Accountability, Explainability and Traceability, Reliability, Governability, and Bias Mitigation.

Al is evolving into a general-purpose technology, presenting varying risks, actors, and complexities across different types. Narrow Al systems are designed to perform specific tasks, while emerging technologies—such as frontier or foundational Al models—are multipurpose and capable of executing more complex functions. A range of related issues requires NATO's attention. These include the potential decline in the global availability of high-quality public data to train Al models, the significant energy demands of compute-intensive AI, and challenges in accountability within human-machine collaboration. Additionally, NATO faces technical and governance obstacles when applying civilian dual-use AI solutions in military contexts.

Al is often viewed as a double-edged sword in cybersecurity. As Al technology advances, it serves as both a powerful tool for defending against cyberattacks and a potential weapon for launching them. Emerging autonomous technologies can increase the anonymity of cyberattacks, enabling them to occur on a larger scale and at higher speeds. Al can accelerate malware evolution, allowing code to continuously modify itself and evade detection. Future Al techniques may also enable hackers to bypass facial recognition, evade spam filters, generate fake voice commands, and circumvent anomaly detection systems.

Securing systems against such sophisticated attacks is essential, as breaches could grant attackers access to large volumes of data, posing direct threats to military operations. An Al-enabled defensive approach helps cyber teams stay ahead of threats by using machine learning (ML) to enhance the speed and effectiveness of both threat detection and response, ensuring more robust protection. ML solutions can improve threat detection accuracy and authorize immediate autonomous responses to counteract new Al-driven cyberattacks. This wave of innovation represents a proactive, forward-thinking approach to cybersecurity.



European High-Tech Consortium Submits Proposal for EDF Call to Develop Multipurpose Unmanned Ground Systems

The consortium that successfully delivered the groundbreaking iMUGS (Integrated Modular Unmanned Ground System) project in 2023 has submitted the iMUGS2 proposal, together with new consortium members, in response to the European Defence Fund's (EDF) call to develop next-generation Multipurpose Unmanned Ground Systems (UGS). Building on the success of iMUGS, the production-capable Consortium is set to revolutionize European military capabilities, enhance battlefield effectiveness and enable the fielding of European unmanned ground systems.

- The first iMUGS project laid the foundation by enhancing robotic capabilities on the battlefield.
 The iMUGS2 consortium has expanded to 29 partners from 15 EU member states, including all partners from the first iMUGS project.
- IMUGS2 will transition experimental UGS technology into a cost-effective System-of-Systems (SoS) solution that delivers practical deployable defence capabilities and is mature for national procurement and force integration by 2030.
- iMUGS2 aims to deliver combat-ready Unmanned Ground Systems, operational concepts at the battalion level, enhanced modular architecture for UGS and optionally manned ground platforms and a 72-hour operational trial to demonstrate the solutions' operational capacity.

Continuing the experience gained from iMUGS, which was successfully carried out and delivered between 2020 and 2023, the Consortium's recent proposal to the European Defence Fund EDF-2024-DA-GROUND-UGS-STEP call seeks to develop and field cost-effective modular unmanned systems capable of supporting dismounted, mechanized, and motorized infantry across all European environments, including GNSS denied

environments and adverse climate conditions. The Consortium has named the project iMUGS2.

Unmanned vehicles (UxVs) have become one of the most significant innovations in modern military operations, as demonstrated during the war in Ukraine. Effective cooperation between UxVs, manned vehicles, operators, and soldiers is essential for increasing combat effectiveness. This collaboration intends to reduce the loss of life, minimize collateral damage, and lower the cognitive burden on warfighters. The first iMUGS project laid the foundation by enhancing robotic capabilities on the battlefield. Its key achievements included developing System-of-Systems (SoS) open architecture, advancements in autonomous functions, cyber security measures, communication technologies, and improved command and control systems. Progress was also made collaborative behaviours like swarming homogeneous teaming. iMUGS2 aims to enhance intelligence. surveillance, target acquisition reconnaissance (ISTAR) capabilities, survivability, situational awareness, mobility, lethality, logistics, and training. "By leveraging the outcomes of iMUGS, the iMUGS2 project represents a significant leap forward in developing and fielding advanced, cost-effective and combat-ready autonomous ground systems," said Raul Rikk, Capability Development Director at Milrem Robotics, the consortium lead. "Our goal is to enhance European defence capabilities and develop solutions that are ready for procurement and integration by 2030." Rikk added.

Using outputs from iMUGS and other European-funded initiatives, iMUGS2 aims to expedite research and move rapidly towards practical, deployable solutions. The enhancement of operational capabilities will be demonstrated through trials with military tactical units. The project will also focus on developing interoperability among European nations and incorporate lessons from recent conflicts, including the war in Ukraine, where several Consortium member systems are deployed.

iMUGS2 has three main outcomes. First, it aims to develop, validate and demonstrate cost-effective, combat-ready UGSs that support dismounted troops at various operational levels and provide practical value in different operations. Second, the project will develop operational concepts demonstrating how UGS and unmanned aerial systems (UAS) can enhance infantry battalion and cross-domain operations capabilities.

Third, the project will enhance and modular architecture and Through Life Capability Management (TLCM) framework that enables efficient integration of autonomous functionalities with legacy and new systems unmanned across and optionally manned platforms, including conversion of manned vehicles.



© Rheinmetall

iMUGS2 aspires to become a European standard due to the collaboration of numerous member states working towards a sovereign modular open architecture.

"It speaks volumes that all participants, member states and companies alike, of the first iMUGS project, have decided to continue with iMUGS2. Furthermore, the iMUGS2 Consortium is twice as large as it was during the first project, now including 29 partners, 15 member states, and numerous subcontractors," said Rikk.

The Consortium's efforts reflect a commitment to strengthening Europe's defence industry, reducing dependency on non-European suppliers, and enhancing interoperability between EU member states' military forces.

About the Consortium: The iMUGS2 consortium has expanded to include 29 partners from 15 European Union member states and associated countries, including all initial project partners. The team comprises large industries, mid-sized companies, SMEs, and research organizations. Each partner brings leading expertise in their respective fields, fostering a comprehensive vision throughout the project lifecycle. This diversity enables the consortium to address potential challenges and deliver strategic and efficient solutions.

© Milrem Robotics

The iMUGS2 Consortium consists of the following entities: AVL List, Bittium Wireless, Czech Technical University in Prague, Cybernetica, Delft Dynamics, Diehl Defence, dotOcean, Elettronica, Escribano Mechanical and Engineering, FN Herstal, GMV Aerospace and Defence, Huta Stalowa Wola, Insta Advance, Integrated Systems Development, John Cockerill Defense, KNDS France, KNDS Germany, Kongsberg Defence & Aerospace, Latvijas Mobilais Telefons, Łukasiewicz – PIAP, Milrem Robotics (project coordinator), Netherlands Organisation for Applied Scientific Research, Norwegian Defence Research Establishment, the Royal Military Academy of Belgium, Safran Electronics & Defense, Secura, Svensk Konstruktionstjänst, Systecon Konsult, Talgen Cybersecurity.

About the first Imugs The 32,6 MEUR integrated Modular Unmanned Ground System (iMUGS) project created a European-wide architecture for ground and aerial platforms, command, control, and communication equipment, sensors, payloads, and algorithms. The project addressed challenges for interoperability, perception, and decision-making. It began in late 2020, and all contractual activities, tasks, and operative and technical objectives were reached in May 2023. Progress was shown in periodic events arranged in all participating Member States: Estonia, Latvia, Finland, Belgium, France, Germany, and Spain. The project and the technology developed have given the European Union a pathway to improving its ability to respond to emerging military threats and challenges.



Type for Switzerland's new artillery system selected: PIRANHA-IV- based wheeled howitzers

The national procurement agency armasuisse announced last week that KNDS Deutschland together with General Dynamics European Land Systems (GDELS) has been selected to provide the Swiss Army's new artillery system, which will combine the 155 mm AGM from KNDS with the PIRANHA IV from GDELS. A corresponding procurement request will be submitted to parliament next year.

The PIRANHA IV Heavy Mission Carrier is a 10x10 version of the proven PIRANHA family, already in use by the Swiss Army, that combines high payload and volume with low axle loads and excellent agility. The five axles, four of which are steered, ensure unparalleled mobility and recoil absorption particularly during shooting while scooting, high trench crossing capabilities and a turning circle of less than 18.5 meters. In the artillery variant, the vehicle accommodates the two-person crew and an optional third crew member with their equipment. The gun module itself is unmanned; loading and aiming of the weapon system are fully automated. The PIRANHA platform enables the system not only to be deployed independently on road, but also to quickly change firing positions even in rough terrain. Together with the AGM, rapid opening of fire without preparation, shooting on the move, direct aiming and 360° fire are possible.



"© KNDS/GDELS

We are very proud to have contributed to such an innovative system within a short period of time and to support our domestic customer out of our Swiss production sites. AGM on PIRANHA IV is the newest member of the mission-proven PIRANHA family and will ensure a significant capability increase for the Swiss Army," says Giuseppe Chillari, Managing Director of GDELS - Mowag. Dr. Thomas Kauffmann, GDELS Vice President for Global Sales, adds: "The unmatched performance of the AGM on the PIRANHA IV in terms of firepower, precision strike and maneuverability sets a new standard in the area of indirect fires. We are confident that this latest member of the PIRANHA family will also succeed internationally."





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