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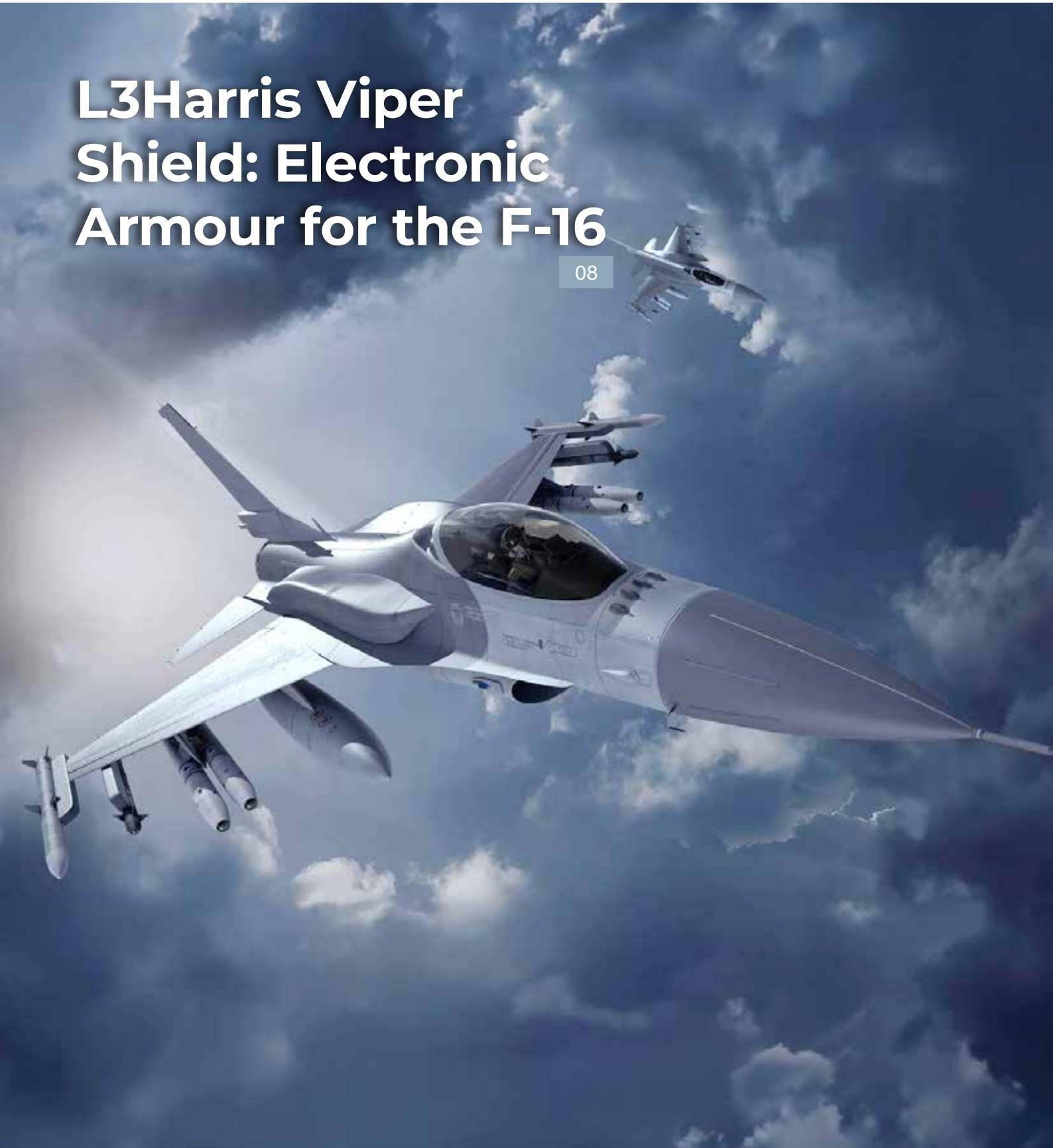

L3Harris Viper Shield: Electronic Armour for the F-16

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The Gulf's Defence Renaissance

How Saudi Arabia and the UAE Are Transforming from Arms Buyers to Defence Producers

Saudi Arabia and the UAE are rapidly transforming from major defence importers into emerging defence and aerospace manufacturing hubs. Driven by evolving regional security challenges, economic diversification goals, and ambitions for greater strategic autonomy, both nations are investing heavily in indigenous defence capabilities, advanced technologies, aerospace MRO, and industrial partnerships. Through technology transfer, localisation initiatives, and collaboration with global defence companies, the Gulf is building a future-ready defence ecosystem focused on innovation, resilience, and long-term self-reliance.

For decades, the Gulf region was viewed primarily as one of the world's largest import markets for military hardware. Saudi Arabia and the United Arab Emirates (UAE) became synonymous with major defence acquisitions, purchasing advanced aircraft, missile systems, naval platforms, and command-and-control technologies from the United States and Europe. Today, however, a significant transformation is underway. The Gulf is no longer content with remaining solely a customer in the global defence ecosystem. Instead, it is rapidly positioning itself as an emerging centre for defence manufacturing, aerospace innovation, maintenance, and advanced military technologies.

This evolution is not merely about prestige or economic diversification. It is deeply connected to national security, geopolitical influence, technological independence, and long-term strategic resilience. Saudi Arabia and the UAE are pursuing defence industrialisation as part of a broader ambition to establish themselves as influential regional powers with indigenous defence capabilities.

EDGE

From Dependence to Defence Self-Reliance

The Gulf's defence transformation is rooted in a changing regional security environment. The Middle East continues to face persistent geopolitical tensions, regional rivalries, asymmetric warfare, terrorism, cyber threats, and the growing use of drones and unmanned systems. For Saudi Arabia and the UAE, relying entirely on foreign suppliers during periods of crisis presents both operational and political risks.

One of the key motivations behind defence industrialisation is the desire to reduce political dependence on external powers while simultaneously strengthening indigenous military capabilities. Although Washington remains the Gulf's principal strategic partner, both Riyadh and Abu Dhabi increasingly recognise that local capability development is essential for long-term security autonomy.

This shift has become even more pronounced in recent years as Gulf nations witnessed how global supply chain disruptions, export controls, and shifting geopolitical priorities could impact military readiness. Indigenous defence manufacturing, therefore, is no longer viewed as optional, it is becoming a strategic necessity.

Economic Diversification Driving Defence Growth

Another major driver behind the Gulf's defence ambitions is economic diversification. Both Saudi Arabia and the UAE understand that dependence on hydrocarbon revenues is unsustainable in the long term. Defence and aerospace industries are increasingly being integrated into broader national economic visions aimed at creating high-value manufacturing sectors, generating skilled employment, and attracting foreign investment.

Abu Dhabi's Economic Vision 2030 and Saudi Arabia's long-term development strategies place strong emphasis on building non-oil industrial sectors and enhancing national technological capabilities. Defence manufacturing has emerged as a key pillar of these ambitions because it stimulates innovation across multiple sectors including electronics, artificial intelligence, advanced materials, robotics, cybersecurity, aerospace engineering, and precision manufacturing.

Saudi Arabia's defence sector is expanding rapidly, with a strong focus on localisation and technology transfer to support the Kingdom's Vision 2030 goals. Key players include Saudi Arabian Military Industries (SAMI), Advanced Electronics Company (AEC), United Defense (UD), and Scopa Military Industries, all of which are playing growing roles in strengthening indigenous manufacturing, systems integration, and advanced defence technologies.

The UAE, meanwhile, continues to build one of the region's most advanced defence ecosystems. State-owned giants such as EDGE Group, specialising in autonomous systems, missiles, cyber technologies, and advanced defence solutions, have become central to the country's industrial ambitions. Global Aerospace Logistics (GAL) has also emerged as a major player in aerospace maintenance, repair, and overhaul services. Other important companies include Calidus, known for its armoured vehicles and aircraft programmes, alongside several subsidiaries focused on precision-guided munitions, electronic warfare, and next-generation defence systems.

Technology Transfer and Strategic Partnerships

One of the most important enablers of Gulf defence industrialisation has been strategic partnerships with major international defence companies. Rather than pursuing isolated indigenous programmes, Gulf states have adopted collaborative approaches centred around technology transfer, joint ventures, offset agreements, and industrial cooperation.

Offset programmes, in particular, have played a critical role in helping Saudi Arabia and the UAE acquire industrial know-how and establish local manufacturing capabilities. Through partnerships with global defence firms, Gulf nations have developed expertise in areas such as vehicle manufacturing, aerospace support, communications systems, unmanned platforms, and electronic technologies.

This approach is now visible across nearly every major defence procurement programme in the region. Modern defence contracts increasingly include local production requirements,

technology transfer clauses, MRO infrastructure development, and workforce training commitments. Gulf nations are no longer satisfied with simply buying advanced systems, they want to participate in building, sustaining, and eventually exporting them.

Aerospace at the Centre of Gulf Ambitions

Aerospace remains one of the most strategically important sectors within the Gulf's defence industrial strategy. The region's airlines, airports, logistics hubs, and geographic position have already made it a global aviation centre. Defence aerospace is now following a similar trajectory.

The UAE has invested heavily in aerospace maintenance and sustainment capabilities, with growing expertise in aircraft servicing, avionics integration, and advanced MRO operations. Saudi Arabia and the UAE have significantly improved their aerospace maintenance capabilities, challenging the outdated perception that regional operators rely entirely on foreign technical support.

At the same time, Gulf defence companies are increasingly moving beyond maintenance into design, systems integration, and manufacturing. The rise of unmanned aerial systems, advanced surveillance technologies, AI-enabled defence solutions, and autonomous capabilities has created new opportunities for emerging regional players to compete in niche markets without needing to replicate the massive industrial bases of traditional defence powers.

This shift is particularly important because modern defence technologies increasingly rely on software, sensors, data processing, and autonomous systems, areas where new entrants

can compete more effectively.

Challenges on the Path to Industrialisation

Despite impressive progress, major challenges remain. Defence industrialisation is a highly complex, long-term undertaking requiring sustained investment, institutional maturity, advanced education systems, scientific research, and a skilled national workforce.

Human capital remains one of the Gulf's most significant challenges. While Saudi Arabia and the UAE have invested heavily in education and training, both countries continue to face shortages of engineers, scientists, defence specialists, and highly skilled technical personnel.

Institutional capacity is another critical factor. Successful defence industries require robust regulatory frameworks, long-term planning mechanisms, efficient procurement systems, and strong civilian-industrial coordination. Although reforms are underway, organisational and bureaucratic limitations could still hinder long-term industrial growth if not addressed effectively.

Moreover, true self-sufficiency remains unrealistic. Even advanced defence-industrial nations continue to rely on international supply chains and strategic partnerships. For Gulf nations, the objective is not complete independence, but rather the development of selective indigenous capabilities in strategically important sectors.

The Rise of a New Regional Defence Powerhouse

What makes the Gulf's defence transformation particularly significant is the speed at which it is unfolding. Over the past two decades, Saudi Arabia and the UAE have evolved from primarily import-dependent militaries into increasingly capable operators with growing industrial ecosystems.

The UAE has demonstrated advanced operational capabilities in coalition operations, air warfare, missile defence, and expeditionary missions. Saudi Arabia, meanwhile, continues to modernise its armed forces while accelerating defence localisation efforts on an unprecedented scale.

Defence exhibitions such as IDEX in Abu Dhabi and the World Defense Show in Riyadh have further reinforced the Gulf's position as a rising global defence marketplace and innovation hub. These events are no longer simply procurement showcases; they have become platforms for industrial partnerships, technology collaboration, and regional defence diplomacy.

Looking Ahead

The future of Gulf defence industrialisation will depend on how effectively Saudi Arabia and the UAE continue to invest in technology, education, research, workforce development, and international partnerships. Success will not be measured solely by the number of locally manufactured systems, but by the ability to create sustainable ecosystems capable of innovation, integration, and export competitiveness.

Military industrialisation in the Gulf is ultimately tied to broader societal transformation and long-term strategic vision. The process will take time, likely decades, but the direction is clear. The Gulf is no longer merely purchasing security. It is building the foundations of its own defence-industrial future.

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L3Harris Viper Shield: Electronic Armour for the F-16

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As modern air combat environments become increasingly contested and digitally driven, electronic warfare (EW) systems are emerging as a decisive factor in ensuring aircraft survivability and mission success. At the forefront of this evolution is L3Harris' Viper Shield™ AN/ALQ-254(V)1 and (V)2, an advanced all-digital EW suite developed for the F-16 Block 70/72 fighter aircraft. Designed in partnership with Lockheed Martin and the U.S. Air Force, the system combines digital radar warning, advanced jamming capabilities, and deep aircraft integration to counter rapidly evolving threats. In this interview with Arabian Defence, Travis "Posum" Ruhl, Director, International Business Development, L3Harris and a former F-16 pilot, discusses the system's operational advantages, scalability, global adoption, and the future of electronic warfare in modern combat operations.

Travis "Posum" Ruhl
Director, International Business Development, Viper Shield Lead & EW SME, Space & Airborne Systems, L3 Harris

Could you give us an overview of the Viper Shield programme and where it currently stands?

Viper Shield is one of the most advanced electronic warfare systems currently available for the F-16 platform. It has been selected as the baseline EW suite for the latest F-16 Block 70 aircraft and is offered in three configurations, as an internal baseline system for new Block 70 aircraft, as an upgrade package for existing fleets, and as a podded solution. Importantly, all three variants share common line replaceable units (LRUs), which simplifies logistics, maintenance, and long-term sustainment.

We are currently at a very exciting stage in the programme. Recently, Peru became our eighth international partner by selecting Viper Shield for its F-16 Block 70 fleet. In addition, Poland became our first upgrade customer earlier this year.

At present, we are preparing to ramp up production for 233 systems. That is a major milestone because it demonstrates the maturity of the programme and provides confidence to future operators. No other F-16 electronic warfare programmes worldwide can claim to be in production at this scale.

The threat environment we are witnessing today, particularly from conflicts in Ukraine and the Middle East, clearly highlights the growing importance and necessity of advanced electronic warfare capabilities. We often describe Viper Shield as "electronic armour" for the F-16. Its fully digital architecture enables the system to detect and process multiple threats simultaneously and respond almost instantaneously.

Electronic warfare is evolving rapidly. What differentiates Viper Shield from other EW systems available today?

One of the biggest differentiators is maturity. We are more than five years into development, the system is already in production, and it is expected to be operational on aircraft by 2027. That is a long journey to go through and we come out the other side with a highly integrated system.

Over the past several months, extensive testing has validated both the performance of the system and its integration with the F-16 platform. Viper Shield integrates seamlessly with the APG-83 AESA radar and has exceeded expectations during testing at Lockheed Martin integration laboratories and U.S. Air Force facilities. The low risk mature system is the first biggest differentiator.

Another major advantage is that the system is fully digital and software-defined. Legacy EW systems were often static, once fielded, adapting them to evolving threats was extremely difficult. Viper Shield was designed differently. It is built to evolve alongside modern threats through both software and hardware upgrades.

The system combines advanced digital radar warning receiver (DRWR) capabilities with digital radio frequency memory (DRFM)-based jamming in a fully integrated package. This allows pilots to detect multiple threats simultaneously and

respond almost instantaneously.

Most importantly, much of the process is automated, reducing pilot workload and significantly improving survivability in highly contested environments.

What operational gaps or evolving threat scenarios led to the development of Viper Shield?

The importance of electronic warfare has been recognised for decades, particularly since the Vietnam era. However, as threats evolved and became increasingly digital, there was a clear requirement for a next-generation EW system capable of responding to that shift.

When Lockheed Martin and the U.S. Air Force developed the Block 70 F-16, they wanted an EW system deeply integrated with the aircraft's avionics and sensors. Viper Shield was designed specifically to meet that requirement.

A key strength of the system is that it combines radar warning and jamming functionality into one integrated solution. The threat environment today is highly dynamic, and traditional analogue systems simply cannot react quickly enough. Viper Shield's digital architecture allows it to adapt to modern and emerging threats in real time.

Peru recently selected Viper Shield for its F-16 Block 70 fleet. Could you elaborate on the growing international interest in the system?

Absolutely. Peru's selection is very significant because it marks another major step in expanding the global F-16 family equipped with Viper Shield. Peru selected 12 F-16 Block 70 aircraft along with the Viper Shield EW suite as part of its fighter modernisation programme.

Poland also selected Viper Shield as part of its F-16 upgrade initiative tied to Lockheed Martin's service life extension programme.

Beyond these announcements, six original Block 70 customers have already selected the system. Altogether, this growing customer base demonstrates confidence in both the technology and the long-term sustainability of the programme.

L3Harris is increasingly investing in AI-enabled defence technologies. How is artificial intelligence shaping your electronic warfare solutions?

Artificial intelligence and machine learning are becoming foundational to modern defence systems, particularly in electronic warfare where the amount of data being processed is enormous.

At L3Harris, we are working on initiatives such as Distributed Integrated Spectrum Collaboration Operations, or DISCO, which focuses on sensing the EW environment, understanding it, and responding rapidly.

AI, especially agentic AI, plays an important role in helping operators interpret large volumes of electromagnetic spectrum data. Human operators remain central to decision-making, but AI-enabled tools can assist in identifying threats, recommending responses, and even supporting rapid reprogramming of EW systems as adversaries adapt.

As conflicts evolve, adversaries will inevitably modify their tactics and wartime modes. The ability to quickly update and adapt EW responses will become increasingly critical.

How scalable is the Viper Shield architecture for future upgrades and next-generation threats?

Scalability was a core design principle from the very beginning.

The system has additional processing capacity already built in, allowing future growth without major redesign. Many enhancements can be implemented purely through software upgrades, which significantly reduces cost and integration time.

Viper Shield is also built around a compact 3U VPX architecture using commercial off-the-shelf technology, enabling easier future modernisation. There is room for additional processing

cards, country-specific capabilities, and even expanded apertures if required in the future.

That flexibility ensures the system remains relevant as threats continue to evolve over the coming decades.

How do you assess the Middle East market for advanced EW solutions such as Viper Shield?

The Middle East and North Africa region remains one of the most important markets for the F-16 platform because of the large number of operators in the region.

We already have two Viper Shield customers there, and we see substantial opportunities both for new Block 70 acquisitions and for upgrades to existing fleets.

One of the strengths of Viper Shield is that the same hardware architecture supports both new aircraft and retrofit programmes. That commonality allows operators to leverage the benefits of a mature production line and a programme that has already seen nearly a billion dollars in investment.

Looking ahead, how do you see defence technologies evolving over the next decade, and where is L3Harris focusing its investments?

As the "Trusted Disruptor," L3Harris is firmly focused on the future and on delivering advanced capabilities rapidly to both the US Department of war and our international partners worldwide.

One of the biggest changes we will see over the next decade is the increasing pace at which threats evolve and, equally importantly, the speed at which defence systems must adapt to counter them. Modern warfare is becoming far more dynamic, which means defence technologies will need to evolve faster than ever before.

Another major shift will be in the cost and accessibility of precision effects and munitions, particularly in the counter-UAS space. This is an area where L3Harris has significant strength. We expect the cost-per-shot for many systems to decrease substantially as technologies become more scalable and operationally efficient.

L3Harris has already been investing heavily in this domain, including systems such as VAMPIRE, which has demonstrated strong operational effectiveness in both Europe and the Middle East.

At the same time, there will be growing demand for trusted industry partners capable of delivering integrated capabilities across multiple domains from munitions and counter-UAS technologies to advanced aircraft integration and electronic warfare solutions.

For me personally, Viper Shield represents one of the most advanced and adaptable fighter electronic warfare capabilities available today, with the flexibility to evolve alongside future threats and operational requirements.

Finally, how optimistic are you about Viper Shield's role in shaping future air combat operations?

I am extremely optimistic. The fact that eight international customers have already selected the system speaks volumes.

Modern combat environments are becoming increasingly unpredictable and threat-intensive. In such an environment, having a mature, combat-ready, and adaptable EW system is essential.

What makes Viper Shield particularly powerful is its ability to function as "electronic armour" for the aircraft. By automating complex EW tasks, it allows pilots to focus on the mission while the system manages the electronic threat environment in real time.

Ultimately, survivability is everything. As a former F-16 pilot, that is what matters most to me ensuring pilots can successfully complete their missions and return home safely.

■

EDGE Reinforced Global Defence Presence at SAHA 2026

EDGE made a strong impression at SAHA 2026, showcasing its rapidly expanding portfolio of advanced defence and technology solutions and reinforcing its position as one of the world's leading advanced technology groups. With a focus on multi-domain capabilities, innovation, and next-generation technologies, the UAE-based group highlighted how it was shaping the future of modern defence and security operations.

Since its launch in November 2019, EDGE has emerged as a major force within the global defence and aerospace industry. Established to develop agile, bold, and disruptive solutions for defence and beyond, the group rapidly expanded its global footprint while positioning itself as a catalyst for technological transformation across the sector.

At SAHA 2026, EDGE's presence reflected its broader vision of delivering advanced, integrated capabilities across air, land, sea, cyber, and space domains. The company showcased a wide spectrum of technologies and systems designed to address evolving operational requirements and increasingly complex threat environments.

Headquartered in Abu Dhabi, EDGE consolidated more than 35 entities under six core clusters: EDGE Commercial, Platforms & Systems, Missiles & Weapons, Space & Cyber Technologies, Technology & Innovation, and Homeland Security. This integrated structure enabled the group to accelerate innovation, strengthen sovereign industrial capabilities, and rapidly deliver advanced solutions to customers worldwide.

A major focus of EDGE's strategy was the adoption and integration of Fourth Industrial Revolution (4IR) technologies. Through investments in autonomous systems, cyber-physical technologies, advanced propulsion systems, robotics, artificial intelligence, and smart materials, EDGE drove the development of next-generation defence capabilities aimed at enhancing operational effectiveness and national security.

The company's approach combined research and development, emerging technologies, digital transformation, and commercial innovation with military expertise to create highly adaptable and mission-focused solutions. By working closely with frontline operators and international partners, EDGE continued to develop technologies tailored to the real-world operational needs of modern armed forces and security agencies.

EDGE's participation at SAHA 2026 also underscored the growing role of the UAE as a regional and global hub for advanced defence manufacturing and innovation. The group continued to play a central role in supporting the UAE's long-term vision of building sovereign industrial capabilities while expanding export potential across international markets.

Beyond technology development, EDGE also remained committed to creating opportunities for the next generation of highly skilled talent. The company viewed innovation not only as a driver of operational capability but also as a foundation for sustainable industrial growth and future workforce development.

As defence and security environments continued to evolve rapidly, EDGE's showcase at SAHA 2026 highlighted its ambition to remain at the forefront of technological advancement and multi-domain defence solutions. Through its focus on disruptive innovation, advanced technologies, and strategic partnerships, EDGE reinforced its position as a key player shaping the future of global defence and aerospace industries. ■

ASELSAN Unveils New Unmanned Naval Systems at SAHA 2026

ASELSAN, Türkiye's leading defense company, introduced its new unmanned naval solutions at a launch event held during SAHA 2026 in İstanbul, demonstrating its focus on enhancing naval capabilities in increasingly complex and multi-domain operational environments.

In the subsurface domain, ASELSAN unveiled KILIÇ family of autonomous underwater strike systems with different variants, developed for asymmetric warfare and covert operations. The systems combine portability, low detectability and high-precision engagement capabilities, offering flexible deployment options across a wide range of mission scenarios. With advanced sensing, communication and navigation capabilities, KILIÇ family can operate independently or as part of coordinated swarm structures, supporting multi-domain maritime operations.

In the surface domain, ASELSAN introduced TUFAN Unmanned Surface Vehicle at SAHA 2026, designed to perform both offensive and intelligence, surveillance and reconnaissance (ISR) missions. The platform combines high speed and maneuverability with advanced autonomy, enabling effective deployment in both littoral and open-sea conditions. Its swarm-enabled architecture allows coordinated operations, supporting simultaneous missions such as reconnaissance, surveillance and precision engagement.

Commenting on the launch of new naval systems, Ahmet Akyol, ASELSAN President & CEO, stated: "Securing beyond the boundaries of naval domain requires a new level of autonomy, integration and operational flexibility. As maritime security gains increasing importance in today's operational environment, we are leveraging our geographical advantages to enhance our capabilities at sea and introducing our new generation unmanned naval systems, designed to address the evolving requirements of modern maritime operations. These new solutions reflect ASELSAN's commitment to delivering integrated and future-ready technologies that enhance the effectiveness of naval forces across multiple domains. Building on our experience in UAV technologies, we aim to strengthen Türkiye's position in unmanned naval systems, as well, with our new products."

Founded in 1975, ASELSAN is Türkiye's leading defense company, combining five decades of engineering excellence with a growing global presence. The company delivers innovative products, services, and integrated system solutions for critical military and industrial missions, with core competencies in radar, electronic warfare, guidance, electro-optics, and information and communication technologies. Beyond defense, ASELSAN also provides high-value solutions in civilian fields such as transportation, security, automation, and healthcare. Powered by more than 14,000 highly skilled professionals, ASELSAN exports its products and systems to more than 90 countries and maintains a direct presence in 25 countries, operating as a trusted global solution provider.

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Thales Alenia Space Secures ESA Contract for LISA Telescopes

Thales Alenia Space, the joint venture between Thales (67%) and Leonardo (33%), announces the signing of a €26.1 million phase 1 contract with the European Space Agency (ESA) related to the development of LISA's telescopes. Made up of three satellites, the LISA (Laser Interferometer Space Antenna) mission will be the first European space observatory capable of detecting and studying gravitational waves generated by extreme cosmic events.

This latest announcement follows the signing of two other contracts related to the same mission. In June 2025, Thales Alenia Space announced a contract with prime contractor OHB System AG to provide several critical elements, including the spacecraft avionics and control software, the telecommunication system, and the drag-free and attitude control system (DFACS). In January 2026, the company was also selected by OHB System AG to provide the propulsion subsystem.

Thales Alenia Space's optical excellence at the service of space exploration

In France, Thales Alenia Space and Thales SESO®, which are responsible for developing the optical payload telescopes, will make a major contribution to the mission.

Based on its globally renowned expertise in the design and manufacture of advanced optical technologies, Thales Alenia Space has been selected by the European Space Agency (ESA) to conduct Phase 1 for the development of the six telescopes, which is expected to proceed in three phases.

As prime contractor, Thales Alenia Space will be responsible for the development, design, assembly, and testing of the telescopes. The manufacture of the six telescopes, made entirely of Zerodur®, will present an unprecedented technological challenge.

It is only the combined expertise in design and manufacturing of Thales SESO® and Thales Alenia Space, along with Zerodur®'s extremely low thermal sensitivity, that will enable the picometer-level stability required by LISA mission.

For this initial development contract, Thales Alenia Space will be able to draw on the long standing expertise of Thales SESO®, Europe's leading supplier of ultra-lightweight Zerodur® mirrors.

Thales SESO® will be responsible for the procurement, machining, and polishing of the optics and structure. In addition, Thales Alenia Space and Thales SESO® will jointly be responsible for assembling the telescopes, aligning the optics, and conducting environmental and performance tests. With more than 200 Zerodur® Space mirrors manufactured and flying, Thales SESO® is among the world top leaders for optical surface precision achieved through polishing, with 0.2 nanometers reached over the 230-mm diameter surface of the mirrors made for Virgo (the European ground gravitational wave detector) —a level of precision that is priceless for the LISA mission.

LISA: the first space-based observatory for the study of gravitational waves

LISA (Laser Interferometer Space Antenna) is a unique space exploration mission by the European Space Agency (ESA) designed to detect gravitational waves directly from space. This space observatory will detect the tiniest distortions in spacetime caused by gravitational waves generated by the acceleration of massive objects, as predicted by Albert Einstein's theory of general relativity in 1916, with a sensitivity and within a very low frequency range (between 0.1 mHz and 100 mHz), inaccessible to existing ground-based measurement facilities such as LIGO in the United States and VIRGO in Europe, due to their limited size and seismic interferences.

The LISA mission will provide a new opportunity to understand the early universe that existed before the formation of stars and galaxies, as well as celestial phenomena such as the interaction of compact stars or the merger of supermassive black holes at the centers of galaxies.

LISA mission: Thales Alenia Space's contribution

Thales Alenia Space will provide prime contractor OHB System AG with several mission-critical elements, including the spacecraft avionics and control software, the telecommunication system, and the drag-free and attitude control system (DFACS). The joint venture will be responsible for the design, manufacture, assembly, integration, and testing of the propulsion

subsystem for the LISA mission. Thales Alenia Space is also responsible for ensuring the exceptional electromagnetic, radiation, and self-gravity operational environment for the payload, essential to mission performance, for which Thales Alenia Space is also managing the budgets.

Thales Alenia Space in Turin, Italy, as member of the LISA Core Team makes use of the experience and design solutions inherited from the five-year study phase led by Thales Alenia Space as the prime contractor. Our facility, in Gorgonzola, Italy, will develop the On Board Computer and the Mass Memory in the same integrated unit. In the United Kingdom, the company is supplying the propulsion system, while France is responsible for developing the telescopes in collaboration with Thales SESO®. Our teams in Switzerland are involved in developing part of the instrument's electronics and of the Constellation Acquisition System for LISA.

Leonardo is also contributing with its technologies to the LISA mission with some key equipment, such as the micro propulsion assemblies, a highly precise system of thrusters used to control the satellite's attitude with extreme accuracy. Other company sites will also have the opportunity to contribute to the LISA mission, supplying spacecraft subsystems or equipment.

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HAVELSAN Showcased ADVENT-AI and BARKAN 3 for the First Time at SAHA EXPO 2026

HAVELSAN showcased its next-generation solutions in artificial intelligence, autonomous systems, command and control, combat management, simulation, training, and cybersecurity at SAHA EXPO 2026, one of Türkiye's leading platforms for defence, aviation, space, and advanced technologies.

At the exhibition, HAVELSAN highlighted its field-oriented technology approach and demonstrated how integrated solutions created operational value across land, sea, air, and joint mission environments.

A major highlight of the company's participation was the first-time presentation of two advanced capabilities, ADVENT-AI and BARKAN 3.

ADVENT-AI Demonstrated AI-Supported Naval Decision Capability

ADVENT-AI, one of the key outcomes of HAVELSAN's long-term work in artificial intelligence, was presented as an AI-supported decision layer designed to assist operators during naval operations.

The system analysed high-volume operational data in real time, helping operators detect patterns, filter critical information, and accelerate decision-making processes. HAVELSAN emphasised that its approach to artificial intelligence focused on supporting operators rather than replacing them.

During SAHA EXPO 2026, HAVELSAN demonstrated ADVENT-AI through an asymmetric threat scenario. The demonstration included track-level anomaly detection, real-time detection and classification of surface objects under electronic warfare and jamming conditions, AI-supported tactical picture generation, maritime navigation support, intelligent monitoring, voice assistant support, and AI-supported naval gunfire effectiveness prediction.

The company also highlighted that the modular and distributed architecture of the ADVENT system enabled these capabilities to be integrated into existing platforms through software updates, providing operational flexibility while protecting current platform investments.

BARKAN 3 Highlighted HAVELSAN's Autonomous Land Capability

HAVELSAN also showcased BARKAN 3 for the first time at SAHA EXPO 2026. The platform represented the company's next-generation unmanned autonomous capability for land operations.

Designed to support field teams in reconnaissance, surveillance, perimeter security, and high-risk missions, BARKAN 3 addressed the growing complexity of modern battlefield environments, including threats such as mines, improvised explosive devices, and operations in dangerous operational zones.

The platform operated ahead of personnel, collecting field data, supporting early threat assessment, and contributing to command and control processes. HAVELSAN stated that BARKAN 3 was developed to work alongside personnel as a mission assistant and force multiplier rather than replace soldiers in the field.

With its modular architecture, BARKAN 3 could be adapted to different mission requirements through the integration of various sensors, payloads, robotic capabilities, and mission support systems.

The company also noted that BARKAN 3 aligned with HAVELSAN's "Digital Troop" vision, where unmanned land, air, and naval systems operated as connected assets capable of sharing data and contributing to a common operational picture.

Broad Portfolio of Integrated Defence Solutions

HAVELSAN's participation at SAHA EXPO 2026 also reflected its broader portfolio across command and control systems, information and communication technologies, autonomous platforms, simulation and training, and cybersecurity.

Among the showcased solutions were ADVENT / ADVENT MÜREN for naval and underwater operations, DOOB for joint operational environments, AICCS for air command and control, and MATRA for maritime domain awareness.

In the field of information technologies, HAVELSAN presented KOVAN, ODAK, and EYEMINER, which focused on process management, secure database management, and AI-supported analytics from video and sensor-based data.

The company also displayed its autonomous maritime platform SANCAR, alongside simulation and training systems including EWTTR, Combat Training Center, ATAK Sim / ATAK CBT, and the GÖKBEY Simulator. HAVELSAN additionally showcased its CBRN solution designed to strengthen preparedness and response capabilities against chemical, biological, radiological, and nuclear threats.

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Rotortrade, the global helicopter dealership, highlights the strategic importance of Asia-Pacific (APAC) and the Middle East & Africa (MEA), as both regions continue to play a leading role in the company's global performance.

In 2025, Rotortrade completed transactions across more than 30 countries in APAC and MEA, including Australia, New Zealand, Indonesia, India, Japan, UAE, South Africa, Nigeria, Zambia and Tajikistan. The company delivered a wide range of helicopter types, including H225, AW139, AW169, 412EP, H145, AW109SP/T, 135T3, 119Kx and AS350/H125, supporting diverse mission profiles such as offshore (OGP), EMS, firefighting, utility, passenger transport and VIP operations.

Together, APAC and MEA accounted for more than 40% of Rotortrade's total revenue and profit contribution in 2025, continuing to reflect their leading role within the company's global footprint.

APAC continues to show strong momentum. In 2025, the region recorded bottom-line contribution growth of up to 50% year-on-year, aligned with Rotortrade's overall global performance, representing 25% of total company sales and margin and 35% of total transactions. Rotortrade's activity spanned 12 countries across ANZ, Southeast Asia, China, India, Japan and Central Asia, with demand primarily driven by utility and EMS missions, alongside OGP, Corporate/VIP and SAR operations.

In Australia and New Zealand alone, Rotortrade secured 7 helicopter bookings in 2025, including 6 twin-engine and 1 single-engine aircraft, reflecting sustained demand for both light twin and mission-capable platforms in the region.

Across APAC and MEA, market activity continues to be supported by demand for versatile and cost-efficient helicopters, ranging from light single- and twin-engine platforms to medium twins supporting offshore and mission-critical operations. These dynamics remain broadly consistent with global trends, where EMS, utility and VIP configurations continue to represent a significant share of transaction volumes.

Rotortrade's ability to operate across these markets is supported by its integrated model combining helicopter sales, financing and leasing solutions, and in-house maintenance (MRO) capabilities. This end-to-end approach enables the company to deliver aircraft that are fully prepared for operations, while supporting customers throughout the asset lifecycle. ■

U.S. Army Selects AV's Switchblade 400 for LASSO Programme

AeroVironment, Inc. ("AV") (NASDAQ: AVAV), announced that it has been awarded a prototype agreement from the U.S. Army for the Low-Altitude Stalking and Strike Ordnance (LASSO) program to support the rapid development, delivery and testing of the Switchblade® 400 loitering munition.

The award establishes Switchblade 400, AV's medium-range, man-portable, anti-armor loitering munition, as a key component of the Army's LASSO Program, supporting the service's modernization priorities for rapidly deployable, precision strike capabilities that can operate effectively in contested environments.

"This award reflects the Army's confidence not only in Switchblade 400, but in AV's ability to deliver at scale," said Trace Stevenson, President of Autonomous Systems at AV. "Being selected under the LASSO program positions AV as a long-term partner to the Army as it modernizes its loitering munition capabilities, from development and testing through production, fielding, and continuous capability evolution."

The first loitering munition purpose-built to operate within AV_Halo™, AV's modular command-and-control ecosystem, Switchblade 400 incorporates advanced aided target recognition (ATR) and autonomous capabilities to detect, classify, and engage targets, day or night, in denied and contested environments while delivering the same anti-armor performance comparable to larger systems, like the Switchblade 600 Blk 2.

Core to Switchblade 400 is the implementation of a Modular Open Systems Approach (MOSA) in system design to ensure long term system resilience and relevance allowing for interoperability, upgradeability, and affordability as missions evolve.

Known as the "Lightweight Tank Destroyer," and sized to fit common launch tubes, Switchblade 400 enables a sensor-to-shooter concept of operations that allows a single soldier to detect, identify, and engage targets through a unified, networked architecture – shortening decision timelines while increasing precision, speed, and operational flexibility at the tactical edge. The system features an all-up round (AUR) weighing under 40 pounds that provides the soldier with a lightweight, man-portable, anti-tank weapon system.

"Switchblade 400 is the product of continuous feedback from the field and the soldiers who rely on our systems in real-world operations," said Brian Young, Senior Vice President of Loitering Munitions at AV. "We are constantly leaning forward, integrating new capabilities, enhancing performance, and reducing the burden on the warfighter. That soldier-driven approach is central to how we develop, test, and deliver capability for the Army." ■

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Embraer Signs Strategic C-390 Partnership with UAE's Generation 5 Holding

Embraer (NYSE: EMBJ / B3: EMBJ3), one of the world's aerospace industry leaders, and Generation 5 Holding, a UAE-based defence and technology company, have signed an exclusive strategic partnership agreement to cover a comprehensive scope of the C-390 Millennium multi-mission military transport aircraft in the UAE.

The agreement was signed today at the Make It in the Emirates 2026 platform held in Abu Dhabi, by Dr. Khalifa Murad Alblooshi, Managing Director of Generation 5 Holding, and Bosco da Costa Junior, President and CEO of Embraer Defense & Security, in the presence of H.E. Dr. Nasser Humaid Al Nuaimi, Secretary General of Tawazun Council for Defence Enablement, H.E. Tareq Abdul Rahim Al Hosani, Chairman of Generation 5 Holding and Francisco Gomes Neto, President and CEO of Embraer.

Under this agreement, the two companies aim to develop comprehensive Maintenance, Repair and Overhaul (MRO) capabilities and after-sales support for the aircraft in the UAE and the Middle East, focused on ensuring mission readiness, rapid response, and long-term fleet sustainability for regional operators. The partnership also encompasses opportunities for industrial and supply chain integration related to the C-390 Millennium, and related training programs for technical, maintenance, and operational personnel, further supporting related knowledge transfer and workforce.

Commenting on this, Dr. Khalifa Murad Alblooshi, Managing Director of Generation 5 Holding, said: "This agreement with Embraer, one of the world's aerospace industry leaders with more than 50 years of proven expertise, reflects our long-term commitment to strengthening defence industrial capabilities, particularly in the areas of maintenance, repair, and training in the UAE. Embraer's selection of Generation 5 Holding as its exclusive partner in the UAE strengthens our joint efforts to accelerate knowledge transfer and expand advanced technical capabilities, ensuring that the C-390 Millennium can be supported and sustained locally to the highest international standards. This reinforces our role as a trusted national partner and contributes to the growth of a self-reliant defense ecosystem aligned with the UAE's vision."

"This agreement with Generation 5 reflects Embraer's strong commitment to the United Arab Emirates and to building long-term partnerships," said Bosco da Costa Junior, President and CEO of Embraer Defense & Security. "By partnering with Generation 5, a major industrial player recognised for its expertise, we are consolidating a broad scope of cooperation enabling the delivery of world-class support, training, and industrial participation for the C-390 programme in the UAE."

Tawazun Council Awards Major C-390 Millennium Contract to Embraer

Tawazun Council for Defence Enablement, the national entity for enabling and regulating the UAE's defence and security industrial ecosystem, has awarded a contract to Embraer (NYSE: EMBJ / B3: EMBJ3) for the procurement of 10 firm orders and 10 options to strengthen the country's operational airlift capabilities in collaboration with an Emirati defense company.

The contract was signed by H.E. Dr. Nasser Humaid Al Nuaimi, Secretary General of Tawazun Council for Defence Enablement, and Mr. Bosco da Costa Jr., President & CEO of Embraer Defense & Security, in the presence of H.H. Sheik Mansour bin Zayed Al Nahyan, Vice President, Deputy Prime Minister of the United Arab Emirates; and Francisco Gomes Neto, President & CEO of Embraer.

Comprehensive Maintenance, Repair and Overhaul (MRO) capabilities, along with after-sales support services for the C-390 Millennium aircraft, will be developed in collaboration with a national company.

Following an extensive analysis and evaluation process, including a comprehensive test campaign in UAE's operational environment, the UAE Air Force and Air Defense selected the C-390 Millennium as the aircraft best suited to meet its critical mission requirements while optimizing operational efficiency and lifecycle costs.

The C-390 Millennium will enable the UAE Air Force and Air Defense to perform a wide range of missions, including cargo and troop transport, airdrop operations, humanitarian assistance, medical evacuation, operations from unpaved runways, and seamless interoperability with national assets as well as allied and partner forces.

To date, this landmark agreement represents the largest international order from a single country for the C-390 Millennium and marks the aircraft's first success in the Middle East, underscoring its strong alignment with the demanding requirements of modern air forces operating in complex environments.

H.E. Dr. Nasser Humaid Al Nuaimi said: "This contract represents a significant operational enhancement to the UAE's military airlift capability, strengthening force readiness and operational efficiency, and enabling the Armed Forces to effectively execute a wide range of missions across diverse operational environments."

"The selection of the C-390 Millennium follows a comprehensive technical and operational evaluation, ensuring high levels of performance and reliability, while supporting effective integration with existing systems and advancing the UAE's multi-mission airlift capabilities over the long term," he added.

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