

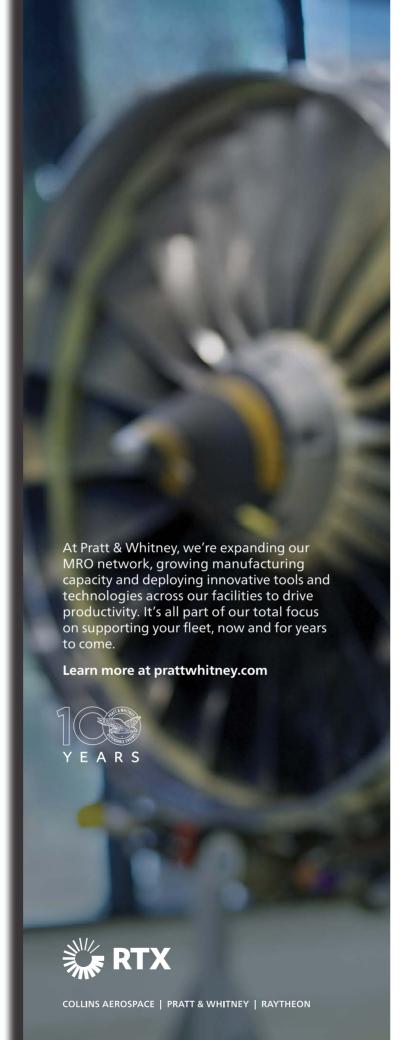


# SHOW BUSINESS

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# SHOW BUSINESS



# BIG LIFT: A400M WORK LINED UP FOR UAE?

## Workshare opportunity could boost airlifter's sale prospects

irbus is in discussions with companies in the UAE over workshare on the A400M to secure its first Middle East order for the airlifter.

UAE firms are being offered roles in what Airbus calls the primary production system of the aircraft, said Gerd Weber, head of the A400M programme. That includes making structure components for the aircraft.

Airbus recently hosted a group of UAE companies in Europe to show them around the A400M facilities and discuss potential workshare if the Abu Dhabi government green lights a purchase of the military transport, Weber said. "We are ready to go," he added.

Airbus already has local ties through its commercial aircraft programmes. The UAE's Strata, for instance, makes parts for the A350 widebody. "We can build on that relationship," said Gabriel Semelas, president, Airbus Africa and Middle East.

Airbus is under pressure to secure more A400M deals. It has delivered 131 of 178 aircraft ordered since the programme's inception and faces a potential

line shutdown around the end of the decade without top-up orders from existing customers or new contracts. All customers, except Indonesia, have taken delivery of all or some of their aircraft. Jakarta's first plane is due by year end.

The Middle East market for A400Ms is around 30-40 aircraft, the European manufacturer projects, with an initial UAE deal likely involving the acquisition of 8-10 aircraft.Weber signalled talks should make meaningful progress this year. Airbus has been trying to make the argument that the UAE could adopt a French air force-like equipment model. The UAE already is a buver of the Dassault Rafale and Airbus A330 multi-role tanker transport and adding the A400M would round out the package, Weber said.

Saudi Arabia is also on Airbus's prospect list, though a UAE deal seems more advanced. Weber said there is enough workshare to satisfy both country's desire to expand their local aerospace and defence production. In addition to making parts, partners could be involved in training and support, Weber said.









### news headlines

Daily news updates on timesaerospace.aero



## Turkey's Kaan maybe can

It will be exactly a year on February 21 that the fifth-gen Kaan fighter prototype made its first flight. Since then there has been a memorandum of understanding agreed with Saudi Arabia, allegedly for more than 100 of these fighters, but no one at Turkish Aerospace was willing to discuss it.

"There is a lot of interest in our fifth generation fighter Kaan, right now," said Turkish Aerospace

Industries general manager Dr Mehmet Demiroglu as he carefully side-stepped the question.

"The second prototype is expected to fly before the end of the year, and the third in early 2026 with the remaining three in 2027. The main advantage is it will be Turkish, there will be no restrictions [like the US DoD's ITAR (International Traffic in Arms Regulations)]," he said.

"Everything onboard is indigenous, the engine and the ejection seat are the only two main systems that are not indigenous yet."

The prototypes and initial serial production aircraft are being powered by the GE F110 after-burning turbofan, but plans are it will eventually rely on a Turkish engine."We have already started working on this, and I expect it will take 6-7 vears to fully develop. It's an ambitious, but fair time-line. Both TEI (Tusas Engine Industries) a joint venture between TAI and General Electric and TRM (TRMotor) are involved in developing it, perhaps with outside assistance. We tried before to find a partner that proved unsuccessful ultimately."

There will be no difference between Block 10 and 20 in terms of capabilities, but the Block 20s will enter service with newer software and enhanced systems readiness that will find their way into Block 10.

The Kaan will replace the Turkish Air Force fleet of around 250 Lockheed Martin F-16s by the mid-2030s, and as the general manager said: "The Kaan will not work with F-16s, instead we are going for manned-unmanned teaming."

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## Offset helps seal the deal

It's not often that offset deals make headlines of their own, but an agreement signed between UAE organisations, Raytheon and engine manufacturer Pratt & Whitney falls into that category.

The 20-year agreement will see UAE engine overhaul specialist Sanad operating a new MRO facility for P&W's geared turbofan (GTF) range of engines.

Under the agreement signed by Raytheon, P&W, Sanad, the latter's parent company Mubadala and the UAE's Tawazun Council, which is the interface between Raytheon and the UAE government, the new overhaul centre at Al Ain Aerospace Park in Abu Dhabi will be able to handle up to 350 engine shop visits a year once it opens in Q3 2028.

The new centre will help to fulfil Raytheon's offset obligations to the UAE and is unusual in being a civil project offsetting military purchases made by the UAE.

The agreement was signed last week but officially announced at IDEX vesterday.

"Pratt & Whitney have been talking to Sanad about developing our relationship with them," said Marc Meredith, P&W VP of GTF commercial after-market.

The deal took more than two years to bring to fruition and benefited from P&W's decade-long relationship with Sanad, which has an MRO operation for V2500 engines at an existing site beside Abu Dhabi International Airport.

"This is a really exciting, generational project, both



From left: Robert Paddock, senior director government relations, RTX; Chander Nijhon, VP systems, strategy and global operations, RTX; US UAE ambassador Martina Strong; Majid Al Shamsi, director economic programme, Tawazun Council and Marc Meredith, VP GTF after-market programmes, P&W

for us and for them," Meredith said. It had been helped by the strong connection with Sanad's MD and Group CEO, Mansoor Janahi.

It became apparent during negotiations that the scale of GTF work would require a new site, rather than expanding Sanad's existing facility. The Al Ain plant is likely to generate several hundred jobs.

Given the scale of future GTF production: "There is a massive opportunity in front of us," Meredith added.

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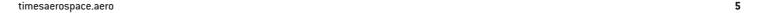
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## Rafael sees mobile lasers as hitting the spot

afael is introducing a new laser air defence system, offering a mobile version of its Iron Beam in its bet that directed energy weapons are the best way to counter the rapidly-growing threat from uncrewed air systems (UAS).

The state-owned weapons technology company is using IDEX to showcase a mobile version of the high-power 50 kW laser, promising a range of several kilometres.

The truck-mounted system comes with a 250mm aperture beam director to engage UAS threats, other aerial or even some

ground threats, the company said.

Israel's Defence Ministry in October signed a roughly \$540 million contract for Rafael and team-member Elbit Systems to expand production capability for Iron Beam, with the goal of it becoming operational this year.

The stationary version features a 100kW-class high-energy laser system and can defeat rockets, mortar rounds, UAS and cruise missiles, among other threats. It is intended to augment the Iron Dome missile interceptor-based air and missile defence system.

One of the attractions of laser-

based systems is their relatively low cost of intercept. While missile-based counter-UAS systems can be at an engagement-cost disadvantage, with the interceptor more expensive than the drone, a laser with a per-shot cost of a few dollars turns the calculus around.

"Engaging at the speed of light, with an unlimited magazine and almost zero cost per interception, the mobile system protects military forces and civilian populations while causing minimal collateral and environmental damage," the company said.

Rafael also is introducing Lite Beam, a 10kW-class vehicle mounted laser system more specifically aimed at the counter-UAS market and to address other low-altitude airborne threats, but can also engage some ground targets.

The system is designed for use on tracked and 8x8, 6x6, 4x4-wheeled fighting vehicles.

The Lite Beam acquires and intercepts targets at more than 3km (1.9mi). "Focusing on a specific point on each threat results in neutralisation within a few seconds," the company said.



## Senken's name is up in lights

Senken, the largest Chinese manufacturer of special vehicle signal lights and alarm equipment, is displaying its product range at the show.

"Our products are widely applied in public security systems and law enforcement equipment for the departments of police, fire rescue, and civil defence," said Run Jiang,

BOEING

regional marketing manager.

"Innovation has always been the main object for Senken's development in the past two decades.

"We have various professional technicians in our R&D centre making a deep study in product industrial design, mechanical research, electronics, acoustics, optics and technological design."
Currently, the company has
successfully developed more than
100 series, over 1000 varieties of
products, and has been granted more

The company is well established all over the world, but Jiang said it is at IDEX hoping to generate interest in the Middle East.

than 100 patents.

#### A NEWS IN BRIEF

## Systematic heads to the BattleCloud

Systematic Defence, a leading supplier of C4ISR software through its SitaWare suite, is unveiling BattleCloud, its latest upgrade to this technology.

BattleCloud will provide users with greater opportunities for deploying artificial intelligence (AI) at scale for the benefit of users across the battlespace.

The Danish-based firm, with a global operational footprint, will be demonstrating the SitaWare suite's capability at all levels of command – from the tactical dismounted user to the mounted commander, and headquarters staff.

## Signing gives early warning hope

Edge, Kintsugi Holding, and the Abu Dhabi Civil Defence Authority (ADCDA) – the government entity responsible for fire safety, emergency response, and disaster management – have signed an MoU at the show to jointly-augment Abu Dhabi's emergency response infrastructure.

The parties will explore the implementation of advanced solutions in priority infrastructures such as early-warning systems, and emergency and response systems, while also cooperating on end-to-end platform integration.

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Secure victory before the battle begins

# General Atomics and CAE sign agreement on MQ-9B

GA-ASI's MQ-9B SkyGuardian remotelypiloted aircraft system

ncrewed aircraft specialist
General Atomics Aeronautical
Systems (GA-ASI) and simulator
and training company CAE are
signing a long-term deal to develop
the next-gen mission trainer for
GA-ASI's MQ-9B SkyGuardian
remotely-piloted aircraft system
(RPAS).

The contract, being signed today, includes a firm order for 11 mission trainers, with the opportunity to deliver up to 50 devices over the next five years.

The trainers will employ the CAE Prodigy image generator to provide a highly-realistic replication of flight operations. Powered by a gaming engine, Prodigy offers an enhanced immersive training environment, hi-fi graphics, and

physics-based simulation.

GA-ASI describes the MQ-9B as the world's most advanced RPAS, delivering long endurance and range, with auto take-off and landing. It can operate in unsegregated airspace using the GA-ASI-developed detect and avoid system.

MQ-9B includes the SkyGuardian and SeaGuardian models, as well as the new Protector RG Mk1 currently being delivered to the UK's Royal Air Force. Other customers for the MQ-9B family include Belgium, Canada, Poland, Japan, Taiwan, India and the US.

"GA-ASI and CAE have worked together to deliver leading-edge training to our customers for more than two decades," said Jaime Walters, GA-ASI's vice-president

of international development.

"Through this partnership, we will continue to enhance operational readiness and effectiveness for MQ-9B operators worldwide, and in particular,

we see the new SkyGuardian mission trainers supporting our new Canadian customer."

GA-ASI's partnership with CAE

is part of its Team SkyGuardian Canada initiative, which focuses on GA-ASI's collaboration and investment with Canadian businesses following Canada's selection of SkyGuardian.



"This agreement underscores our commitment to advancing the capabilities of RPAS training and ensuring that MQ-9B SkyGuardian operators worldwide have access to the best training tools available," said Marc-Olivier Sabourin, division president, CAE Defense and Security, International.



## Aura Aero establishes defence-focused subsidiary

Aura Aero has unveiled 'M', a new defence-focused subsidiary based in Abu Dhabi. M will spearhead, alongside other products, concurrent development of the French electric aircraft pioneer's commercial regional aircraft.

Highlighting platform commonality between the proposed variants, "this will enable Aura Aero to be stronger and utilise both application cases to accelerate decarbonisation and share development costs," explained Jérémy Caussade, CEO, co-founder and chief engineer – adding that a

defence-focused business area has always been on the cards.

Based in Abu Dhabi and supported "by the highest level" of government, the new venture will be enabled through a collaboration between the French government with financial help from the UAE.

"We feel we could do far more than what we would achieve alone," added Caussade, noting the existing strategic alignment between the UAE and France, including their air forces' preference for Dassault fighters.

Set-up of a pre-selected produc-

tion facility (Aura Aero's "third and last") will commence next year, with the acceleration and fostering of capabilities in Abu Dhabi also key to the venture.

Expanding on the opportunities offered by the all-electric 'ERA' electric regional aircraft – set to make its first flight in 2026 ahead of anticipated entry into service in 2028 – the militarised 'Intruder' variant will fulfil roles such as airborne command and control or cargo transportation.

This could potentially operate in an uncrewed capacity.

### UAE seeks enhanced Earth observation push

The United Arab Emirates is looking to further bolster its space ambitions through a joint venture between the country's Space42 and FADA, Edge Group's new space unit.

It aims to "bolster its efforts in Earth observation," said Edge's president for space and cyber technologies cluster, Waleid Al Mesmari. The move, though shy of an outright integration, comes after Space42 was created last year out of the merger of geospatial product provider Bayanat Al and Al Yah Satellite Communications Company.

On February 17, Edge and Space42 signed an agreement to collaborate to build the country's space-based remote sensing capabilities. "This joint venture brings together FADA's expertise in advanced technology, defence, and manufacturing with Space42's leadership in Al-driven satellite solutions, creating a powerhouse for next-generation space-based intelligence and situational awareness," said Al Mesmari.

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CAPABILITIES FOR THE WARFIGHTER



# Xaver 1000 sees through walls — and dust or darkness

While the old saying 'walls have ears' is true, they now have eyes as well. Israel based Camero-Tech, part of the SK Group (Stand 02-A02), is demonstrating its innovative 'sense-throughwall' imaging radars.

Among this range of portable imaging systems is the award-winning real-time Xaver 1000, equipped with AI-based tracking ability of live target patterns over more than 40 meters. It can distinguish whether the object is an adult, a child, or an animal.

As Ilan Abramovich of Camero-Tech said: "A single operator can virtually 'see' in 3D through a wall or series of walls at the push of a button. This makes the Xaver 1000 optimal for military, law enforcement, search and rescue, and intelligence, surveillance, and reconnaissance (ISR) operations in urban and disaster environments."

He further explained that the operator would be able to establish whether a stationary individual is alive by detecting minute movements such as breathing. Founded in 2004, Camero-Tech draws on decades of experience providing fully-operational solutions to major government and commercial customers in more than 50 countries. Its search and rescue kit provides critical life-saving information to first responder teams at disaster sites all over the world.

Israel Weapon Industries (IWI), another member of SK Group, is showing its computerised small arms system for the first time outside the country. The new Arbel computer system is incorporated into the Negev light machine gun (LMG) to significantly increase the lethality, accuracy, and survivability of the operator.

"Even I, as an experienced machine gunner, could not beat this system for speed and accuracy on the shooting range," said IWI's Ilan Vishnovski. "That means a soldier saves ammunition and carries less weight, hence is less fatigued."

He stressed that the lightweight rechargeable battery for the compact computer system attached to the weapon's hand grip is propri-



Eye-on-the-wall: The Camero-Tech Xaver 1000 portable imaging system

etary. The weapon can still fully function even if the battery is damaged.

In terms of small arms, Metrolight, also in the SK Group, has developed a novel Tigon sight that combines reflex and thermal technologies. This allows for day and night operation. Being compact and lightweight, it lowers the burden on a soldier, once again increasing efficiency and survivability during operations.

## To Heven with hydrogen: Raider unveiled

ur mission is to make drones more like flying robots," said Bentzion Levinson, founder and CEO of hydrogen-powered UAS specialist Heven Drones.

Unveiling the latest addition to its H2D family of drones, the Raider, the launch of the US company's latest platform "reflects our mission to enhance operational capabilities for a broad range of missions," he added.

Crucially, Heven has fully embraced the potential hydrogen fuel cells offer to provide a greater range and payload capacity than electric power and a quieter acoustic footprint than a thermal engine.

Building on an existing product's 5kg payload and 10-hour flight time, the raider offers 23kg of payload with an extended 12-hour duration.

These parameters were reached through an iterative process with the end user, realising Heven's vision of

what "it knows is possible" while comfortably meeting operational requirements.

"Nobody has a 50lbs payload capacity with stealth capability," explained Levinson; adding that as 90 per cent of US drone-carried DoD packages are under 50lbs, the Heven's ability to largely exceed this represents a "sweet spot".

Assembled tool-free in less than five minutes, the fully-VTOL aircraft is optimised for deployment in diverse environments. With a typical 12 hour mission using around 1kg of gaseous hydrogen (pressurised at 350 bar), the aircraft can be refuelled through a modular tank or filled up from a mobile vehicle-towed

generation/refuelling station.

Two identical propulsion systems housed in separate fuselages offer redundancy, and a large camera and radar sensor sit adjacent to a payload bay between the booms.

Following the culmination of ongoing flight tests, the Raider is expected to be operational with

customers from 2026, having already received multiple contracts from both the Israeli and US governments.

A variety of relationships and partnerships are also under discussion across Asia and the Middle East, with Heven expecting to sell "many millions" of units, manufactured at sites in Israel and the US, over the coming years.

As hydrogen fuelling technology advances, so too will the Raider's payload, cementing its place as "the backbone of fleets" for years to come.

Border-specific missions are also being envisaged for future use scenarios.





## **WDS 2026 Dives Deep into Unmanned Systems**



he defense industry is moving into a new era, one which is powered autonomously, from high-speed drones to Al-driven ground and naval vehicles — unmanned systems are transforming operations, unlocking new possibilities. At World Defense Show 2026, we're honing in on this transformative shift, making the latest advancements in unmanned systems a focal point, our new features offer an in-depth look at how innovation is redefining the industry.

The new Unmanned Systems Zone will showcase advancements in autonomous technology across air, land, sea, and space defense domains. Visitors can expect a unique and immersive experience through a large-scale static display and unquue live demonstrations of Al-powered drones, autonomous ground vehicles, and more on our

purpose-built runway. While our all-new Naval Zone will showcase advancements in vessels, Al, cyber capabilities and unmanned maritime platforms.



Further reinforcing WDS 2026's commitment to next-generation defense technology, the Future Defense Lab will serve as a collaborative space for startups, research institutions, and defense innovators to unveil groundbreaking concepts and prototypes. A cornerstone of innovation, Future Defense Lab gives a preview into how autonomous capabilities will progress, bridging the gap between emerging technologies and real-world defense applications.

Cultivating a collaborative, fully-integrated approach, World Defense Show 2026 recognizes and embraces the evolutionary technologies spearheading industry shifts with new features elevating the platform.

Join us from February 8-12 to witness the next phase of defense, where unmanned systems and groundbreaking Al advancements drive the future.



## **Bharat Forge eyes export** market for artillery systems

| ndia-based Kalyani Strategic Systems Ltd or KSSL is looking for export markets for its newlylaunched MArG 155mm/45 calibre mounted gun system. The gun system can be mounted on an all-terrain 4x4 high mobility vehicle

"MArG 45 is designed for rapid deployment and superior manoeuvrability. It is a "go-anywhere" gun with

several countries to address their defence and security requirements in artillery systems, battlefield protection, ammunition empties,

and other requirements.

chairman and managing director of

Bharat Forge, the parent company.

KSSL has been engaged by

The company had received an export order worth USD155.5 million for an advanced towed artillery gun system and MArG-BR systems to a non-conflict zone.

> the first indigenouslydesigned, developed and manufactured artillery system from India. As global stock of empty shells depleted and capacities constraints weighed, KSSL secured multiple orders for shells with capacity

KSSL's Siraj Shaikh with the MArG 155mm/45 calibre mounted gun system booked for the next two to three years. As a matter of policy, all defence exports are to non-conflict zones," Kalyani noted.

The company's platforms focus on deterrence (artillery systems), battlefield protection (KM4), situational awareness, and consumables. "The unveiling of MArG 45 marks a significant milestone in mobile artillery, reinforcing KSSL's commitment to self-reliance and cutting-edge defence innovation," he added.

Built for superior mobility, its tailor-made chassis, developed in-house, ensures maximum agility in diverse combat environments. The system is compatible with NATO-standards and in-service ammunition, enhancing its versatility.

The gun features an intense rate of fire of 10 rounds in three minutes and a sustained rate of 42 rounds in 60 minutes, ensuring continuous firepower during combat.

### **UAE's NDCTC all** ship-shape for navy training

Navy trainees are now being put through their paces at one of the world's most sophisticated training establishments in the

The UAE's Naval Doctrine and Combat Training Centre (NDCTC) conducts both initial and continuity training.

Traditionally, navies trained operators ashore, then sent them to sea to hone their skills Training at sea, however, has its drawbacks. Firstly, if a warship is involved in operations, it can be difficult to find the time to undertake training. And arguably, a warship is not the best place to undertake training, anyway.

"What you don't want is to do this 'live', with real equipment," said CAE division president of defence and security, international, Marc-Olivier Sabourin.

"What we've addressed here is to digitalise the overall operational environment of the navy, taking a whole fleet approach."

This sees individuals first learning their own roles, then training as a team, then as a whole ship's company, then as multiple ships' companies working together.

With simulators and other equipment at the NDCTC. "You can have hundreds of people training at the same time. You can have a realistic scenario where mistakes are made and assets are lost. You can brief, run the mission, then debrief," he said.

The objective of the centre is to train people to such a level so that when they go to sea "it's simpler and easier".

In effect, they develop a 'muscle memory' that allows them to respond faster and more accurately when under pressure in a real ship.

The NDCTC is operational, with its capabilities being steadily stepped up. The UAE is already hosting personnel from other nations at the facility.





Houbara's Base Camp portable comms system has made its IDEX debut, with the internet protocol (IP) private branch exchange (PBX) phone system - the latest evolution of a version first unveiled three years ago, described as one of the easiest, most intuitive 'plug and play' solutions available.

Able to connect multiple countries without sharing encryption, the independent situation for situational awareness is able to connect what Houbara describes as a multitude of disparate systems that couldn't otherwise communicate.

Base Camp complements a radio system Houbara said is the closest thing to National Security Agency (NSA) type 1-encrypted product still available, putting accessibility and data in the hands of customers



to support. There is no airfield for miles. You need to reach a hostile environment in unforgiving terrain where the only options are short, unpaved airstrips. The multi-role Airbus A400M can carry 37 tonnes of aid, more than 100 people or even life-saving, heavy engineering equipment. It is capable of landing virtually anywhere, ensuring that civilians, units or communities who need support are never out of reach. With the A400M we can help them and protect our beautiful world.

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airbus.com 

GREEN POWER TURBINE SYSTEMS COMPANY AT-01

Daily news updates on timesaerospace.aero



## **PLANE TALKING - TYPE: AT-01**

The Green Power Turbine Systems company AT-01 Airplane is a modern, environmentally friendly aircraft designed for versatility in various aviation roles, including primary training, regional transport, and tourism. Certified under CS-23 (aerobatic) standards, it is built to handle various operational demands while maintaining efficiency and safety.

#### **DESIGN FEATURES**

The aircraft features an all-metal primary structure, ensuring durability and reliability. A low-wing configuration provides enhanced stability and visibility for both pilots and passengers. Its four side-by-side seats offer comfort and accessibility, making it an ideal choice for training and short-haul transportation.

#### **FLYING CONTROLS**

The aircraft is designed with dual control systems, incorporating both mechanical and fly-by-wire technology. This combination ensures precision handling, making it suitable for both novice and experienced pilots.

#### **LANDING GEAR**

The tricycle landing gear configuration enhances ground handling and stability, particularly during takeoff and landing. The leaf spring main landing gear provides robust support, absorbing shocks effectively and reducing maintenance requirements.

#### **POWER PLANT**

Powered by an SMA SR305-260E engine, this aircraft boasts a MT Propeller, ensuring optimal performance and fuel efficiency. The engine's advanced technology supports sustainable aviation practices while delivering reliable power output.

With its blend of modern aerodynamics, advanced control systems, and fuel-efficient propulsion, the Green Power AT-01 aeroplane is an innovative solution for training institutions, regional operators, and tourism enterprises seeking high-performance, ecofriendly aircraft.

#### **DESIGN FEATURES**

Four seats, side by side, all metal primary structure, low wing, fixed landing gear, primary training, regional transport, tourist, CS-23 (aerobatic)

#### **FLYING CONTROLS**

Dual control, mechanical and fly-by-wire

#### **LANDING GEAR**

Tricycle, Leaf spring main landing gear

#### **POWER PLANT**

SMA (SR305-260E) MT Propeller

#### **WEIGHTS AND LOADINGS**

- Weight empty [kg] 630
- Max T-0 weight [kg] 1150kg (A) n=6/-3, 1270kg n=4.4/-2.2, 1450 kg n=3.8/-1.9
- Payload weight [kg] 360, including four passengers
- Max wing loading [daN/m2] 77

#### **PERFORMANCE**

- (at max weight except where indicated):

  Never-exceed speed (Vne) [km/h] 390
- Max level speed at sea level (S/L) [km/h] 330
- Max cruising speed al S/L [km/h] 280
- Stalling speed flaps down [km/h] 95Max rate of climb at sea level (S/L).
- [m/s] 7.2 Time to 600 m (1.970 ft).
- 75% power, [s] 100
- Take off run [m] 165
- Take off to 15 m (50ft) [m] 350
- Landing from 15 m (50ft) [m] 400
- Landing run [m] 150
- Range with max. fuel [km] 1000
- Ceiling [m] 4000
- Find us on booth 07-D45



## MTG Dolphin to complete patrol vessels

ulgarian shipbuilder MTG
Dolphin is pressing ahead
with the completion of two multipurpose modular patrol vessels
(MMPV), with both vessels
expected to be handed over by next
year.

"The first one will have to be delivered by the end of this year and the second in 2026," said vice-admiral Plamen Manushev, naval projects and development consultant at MTG Dolphin.

The Varna shipyard constructed the two vessels, which were designed by Germany's NVL. They were launched in August and December last year.

They will become operational with the Bulgarian navy "as soon as possible", although an extensive programme of training and

certification means it could be three years before the vessels are declared fully operational and can meet Nato requirements. "Everyone has to know everything by the time the ships are delivered," said Manushey.

The two MMPVs will replace two Soviet-era anti-submarine vessels – a Koni-class frigate and a Pauk-class corvette.

As their designation suggests, the new MMPVs will tackle a variety of duties. Their main armament will consist of four Saab RBS 15 anti-ship missiles and eight French Mica anti-air missiles. They will also have a 76mm Oto Melara cannon and a 35mm Millennium close-in weapon system.

The ships will not be confined to the Black Sea, Manushev said.



Rather they will take a full part in Nato standing naval groups and will serve in the Mediterranean – and possibly further afield.

MTG Dolphin is at the show to search for potential export orders.

## Sinyar's evolution from five-seater personal jet to drone

One of the more surprising exhibits at the Edge stand is the Sinyar LAR3P unmanned combat aerial vehicle (UCAV), that is a product of the company's joint venture with Polish company Flaris.

In November 2023 Edge announced the acquisition of a 50 per cent stake in Flaris, a pioneering Polish aviation company specialising in the development of state-of-the-art personal jets. The Sinyar is a development of the five-seat LAR 01 that was publicly unveiled at Paris in 2013 and made its first flight in 2019.

Flaris spokesperson, Piotr Ladzinski, said: "This is an autonomous

aircraft tailored for ISR missions, that can fly at 40,000ft and has accumulated more than 300 flight tests as a manned aircraft.

"Designed under the EASA CS-23 regulation, Flaris is right now working on two projects – the five-seater, and this UCAV. The wings can be detached in 10 min-

utes, which allows it to be transported easily on a lorry or a cargo aircraft."

Positioned under the nose is a Wescam MX-15 electro-optical/infrared (EO/IR) turret, but other sensors for various special missions can be fitted in the aircraft and there is a SATCOM system inside.

"We have a small weapons bay where we can house light weapons like the Desert Sting 16, which means we reduce drag. It was designed to take off from unpaved runways and needs just 200m to take off. The engine mounted on top of the fuselage is the Williams FJ33-5A."

While the aircraft is currently being manufactured in Poland, production is being transferred to Abu Dhabi and Flaris will train Emirati people, first in Poland and then locally.





## Keeping people and society safe







At IDEX 2025, discover Saab's renowned surveillance solutions, including GlobalEye – the world's most modern and advanced AEW&C solution – and our Giraffe 4A and Giraffe 1X radars that provide users with simultaneous air defence target data, drone detection and C-RAM capabilities. Also featured is DeployNet, our scalable 5G/LTE wireless network delivering secure voice and data communication.

Furthermore, we showcase a new product – the **Coast Control Radar**, a next generation non-rotating and software defined radar for installation on existing infrastructure.

Visit Saab at IDEX 2025 at stand 07/B41.





### news headlines

Daily news updates on timesaerospace.aero

# Thuraya 4 set to reach orbit in coming weeks

pace42's Thuraya 4 satellite is set to reach orbit "in the coming weeks," the company has confirmed, with the next-generation unit (launched in January 2025) hoped to become operational later this year.

Previously an exclusively geospatial satellite provider, Space42 currently has two low Earth orbiting (LEO) units to complement its stellar collection, with a further third and fourth LEO satellites to launch later this year.

The company is also manufacturing a LEO constellation for synthetic aperture radar (SAR) purposes in the UAE (to be operational by 2026), representing an increasing shift towards a "multiorbit discipline", highlighted Ali Al Hashemi, CEO Yahsat Space Services.

As the first company in the world to spearhead an AI-powered geospatial satcom solution, "we're

riding the wave to enable our fleet today," continued Al Hashemi.

With Space42 developing its multi-disciplinary gIQ product — leveraging AI-driven solutions to process datasets — gIQ stands to benefit a variety of disaster data collection and early warning scenarios. This, believes AI Hashemi, is on track to be "the best, if not number one, geospatial intelligence platform in the world".

Additionally, effectiveness of the gIQ solution will be further augmented by the collection and analysis of end-user data.

Launched from Florida's Cape Canaveral in January, the satellite is one of the largest mobile-satellite service (MSS) communications satellites ever produced (around the size of a football field) and also one of the most technologically advanced.

"For the first time, we'll be top of the market with MSS," continued Al Hashemi.

Hamad Al Tair,
VP of government
business at Yahsat,
elaborated that the
new hardware to be
enabled by Thuraya
4 includes tracking, radio conversion and next-gen
broadband – with
governmental aircraft applications to

follow.
Part of Thuraya's transformational programme to simultaneously upgrade three segments (space, ground, and products and solu-

ground, and products and solutions), its satellite solutions are augmented by its proprietary high-altitude platform station (HAPS) systems. Space42 believes it will continue to see elevated demand across the disaster recovery and early warning BOLD STEPS
Hamad Al Tair,
VP of government
business at Yahsat



remits (augmented by the advent

Additionally, Space42 is continuing manufacture of its ongoing SAR-focused satellites in the UAE (with two units under a \$5.1bn contract with the UAE).

"Space needs a bold step, and the UAE is very well known for being bold," concluded Al Hashemi.

### Turkey's Midyat produces 10 million bullets a month

Turkey's Midyat Explosives is at IDEX to introduce its range of explosives for the mining industry, as well as civilian explosives used in the construction sector and specific branches of the military.

"Through our modern production facilities and highcapacity explosive material warehouses, our company manu factures civilian explosives and light weapon ammunition products in compliance with the latest security and quality standards," said Kamran Mammadli, foreign trade and marketing director.

Since 2017, the company has produced light weapon ammunition at its NATO security-certified facilities. "We manufacture light weapon ammunition in '9x19 mm', '5.56x45 mm', and '7.62x51 mm' calibres, in accordance with NATO standards," said Mammadli. He added that the company produces 10 million rounds of ammunition at its factory monthly.



### **GDC Middle East eyes expansion**

Serving more than 160 aircraft across 10 fleets (including 11 aircraft types), Riyadh-based GDC Middle East highlighted how additional investment would help the mainly-military Saudi MRO provider further scale its operations.

With high demand for local capabilities, focus remains on establishing technology transfer from OEMs and extending existing capabilities whilst maintaining its mandated localisation.

The company is 80 per cent owned by the Saudi Investment Fund with Ajwa Aviation Holdings taking the remaining 20 per cent.

Expansion would potentially enable GDC Middle East to better serve the Saudi Market, including Airbus A330 multi-role tanker aircraft (MRTT) and mission systemequipped aircraft fleets, said Abdulaziz Saeed Bawazeer, business development manager.



**C-OTM**Communications on the Move

IDEX 2025, booth #01-001

FREQUENTIS

# THALES MILSATCOM GROUND SEGMENT

COMBINING PROTECTED MODEMS & MULTI-ORBIT TERMINALS

Highest level of protection and resilience // Hybridation between sovereign military satellites and GEO/ HEO/MEO/LEO commercial constellations

ritical on-the-move communications between operational forces and command centres call for systems that are reliable, available and secure. With the transition to connected collaborative combat, satellite communications are the only way to guarantee long-range connectivity, shortening the decision making process to a few seconds, and giving a major tactical and decisive advantage over the enemy.

Governmental and Military satellite communications play a crucial role on theatre of operations and must take into account the new needs of tactical users:

- High throughput capacity to respond to the increasing volume of data and number of platforms involved on the theatre.
- Availability & security of communications under all types of threats (cyberattacks, interference, jamming).
- Mobility to guarantee communications with all types of deployable and mobile platforms between the terminal and the HQ and between terminals on the battlefield.
- Multi-orbit satcom terminals capable of connecting to GEO, HEO, MEO and LEO satellite constellations, hence providing further level of resilience and protection thanks to diversity of connection paths.
- Interoperability between the different armed forces communication networks thanks to compliance to STANAG 4606.
- Adaptation to a wide range of land, sea and air mission profiles.
- Agility of the solutions for quick mission's deployment and operation.

NEXIUM SAT is Thales' mobile, secured and protected military satellite communication solution. Field proven and used by multiple countries in the world, it provide satellite connectivity in all types of environments and for all units on land, in the air and at the sea. NEXIUM SAT is a high-end MILSATCOM ground segment network that encompasses the



following elements:

- Modem21 and its unique wideband Electronic Protection Measure (EPM) waveform.
- Full range of land, sea and air multibands multi-orbits terminals (parabolic, mechanically steered flat panel and AESA active antennas).
- System21 with its full suite of flexible planning, control and monitoring software
- Consistent end-to-end quality of service, security and resilience.

The protected Ground User Segment comes with different types of remote user terminals to meet versatile operational deployment needs. The terminals equip the different armed forces units (combat, fire support, intelligence support, signal, logistics, medical, etc.) and their deployments are planned according to the operational criteria: mission definition, threat

Thales offers a wide range of satcom terminals, including state-of-the-art multibands multi-orbits terminals capable to provide hybrid connectivity between sovereign military satellites and commercial GEO/MEO/LEO constellations:

identification, link availability, data throughput.

- Man pack terminal a light deployable terminal for Special Forces missions or any mission requiring very rapid deployment. Thales portfolio includes a range of high gain parabolic antenna terminals, flat panel passive antenna terminals and AESA active antenna terminals with multi-obit GEO/HEO/MEO/LEO capabilities.
- Flyaway terminals (FAW) a deployable

terminal composed by several transportable cases with a high gain parabolic antenna.

- On the Pause terminals (OTP) a terminal fitted with a shelter or on a vehicle with a deployable parabolic antenna.
- on the Move terminals (OTM a terminal fitted with any platforms notably land vehicles and aircrafts. Thales portfolio includes a range of AESA active antenna terminals and mechanically steered antenna terminals (MSA) with multi-obit GEO/HEO/MEO/LEO capabilities.
- Fixed terminals installed on national bases, headquarters, governmental premises, command posts or white zone
- on surface vessels, submarines and unmanned surface vehicles. Thales portfolio includes a range of high gain parabolic antenna terminals, flat panel passive antenna terminals and AESA active antenna terminals.
- Airborne terminals installed on airplanes, helicopters and unmanned aero vehicles (drones). Thales portfolio includes a range of parabolic antenna terminals, flat panel passive antenna terminals and AESA active antenna terminal.

From strategic communications to theatre operations, Thales delivers superior solutions, focused on meeting the evolving challenges of the military landscape.

## Pipistrel Virus 'on steroids' under development

An experimental configuration of a Pipistrel Virus, forming the basis of a multi-mission aerial platform under development by Timtec, is to make its first flight this June.

Supported by the Slovenian Ministry of Defence, the strategic project looks to leverage opportunities by a previously-certified platform to create an optionally-piloted craft with cost-effective aerial capabilities.

A concept described as "like the Pipistrel Virus on steroids" by Timtec Defense CEO Marko Peljhan, the test platform will make its upcoming flight with an autonomous guidance system (supported by a safety pilot).

Although the end platform (dubbed the X905) will likely evolve – with Peljhan admitting "this system in the wrong battlefield is a huge target" – potential applications include a container carrier for loitering munitions.

With a payload mass of 182kg (optionally piloted), four underwing hard points and a cruise/loiter speed of 120 KIAS/70 KIAS,

the aircraft can also be equipped with a dedicated mission datalink and an optional satellite datalink system.

Following the milestone autonomously-guided flight this June, the optimisation, integration and evaluation of various systems will continue.

With the two-seat, light aircraft already certified, the systems will inevitably prove easier to develop from a regulatory perspective, with the option for a test pilot on



E

Experimental configuration of a Pipistrel Virus

board also a welcome addition. Indeed, Pipistrel platforms have already been modified for classified missions by the US, which, as Pelihan explained, "are ISR missions as far as we know".



## Identa is sniffing out narcotics

denta Detection Solutions has teamed up with vacuum cleaner specialist Dyson to produce its portable sniffer detector, the AeroChamber Sniffer.

"This a first-of-its-kind handheld narcotics analyser that revolutionises drug and explosive screening and detection missions," explained Amichai Glattstein, CEO. "It is a versatile solution that enables users to detect even the smallest traces of substances on any surface or object making it ideal for airports, passenger aircraft, ports, law enforcement, and other government agencies worldwide."

The company is also displaying its drug screening test kits and advanced explosive testing kit solutions. "Our drug screening test kits provide a convenient and reliable solution for identifying illicit substances," said Glattstein.

"They are meticulously developed using patented technologies and advanced chemistry, ensuring unmatched performance and precision. With minimal training required, our user-friendly testing kits for drugs enable law enforce-

ment agencies, military personnel, and other organisations to effortlessly identify illicit substances in various scenarios."

He added: "Our explosive testing equipment provides precise results, ensuring safety and security in various professional environments. It eliminates the reliance on laboratory analysis, saving valuable time and resources.

"With our portable explosives test kit, you can extend your screening capabilities to any location, ensuring safety and security wherever you go," he said.

### **Protected vehicles**

International Armored Group (IAG) has more than 30 years' experience in the design, engineering, prototyping and manufacturing of armoured tactical and commercial vehicles. It is showing a range of these vehicles on Stand 12-A10 this week.

These include the Guardian Xtreme MRAP, the light patrol vehicle (LPV) and an armoured water cannon truck. A bulletriddled Toyota Land Cruiser 300 series is attracting much attention. It has been tested under the latest Vereinigung der Prüfstellen für angriffshemmende Materialien und Konstruktionen (Association of Testing Bodies for Attack Resistant Materials and Constructions) or VPAM standards for vehicle ballistic and blast resistance, leading to IAG having certified the VR7 TLC 300.

IAG boasts locations in the US, Canada, United Kingdom, UAE, Türkiye and Bulgaria.

### ELT Group showing EW simulation lab

ELT Group, which has operated in the UAE for more than 40 years, is showing a raft of technologies including its electronic warfare (EW) simulation lab, an immersive and high-fidelity simulation centre where the operator can test his ability in an EW multilayer environment to analyse and identify radar threats and apply EW countermeasures to appreciate their effectiveness.

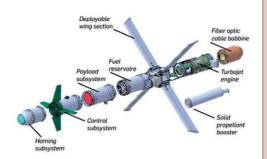
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## **EDePro missile** technology

EDePro's engineering flexibility enables the rapid development of effective solutions. Constantly looking ahead and anticipating market developments, our world-class engineers and niche experts can meet our client's expectations for high performance, quality, reliability, efficiency, and speed in delivering defence tech products.





The EDePro engineering team has expertise in navigation, homing heads, mission computers with autopilot and guidance, aerodynamic actuators, and actuator controllers. Our team has a proven track record of successfully supporting its customers by providing a comprehensive variety of highly effective, reliable and affordable missile hardware and software.

All hardware is processor-controlled and connected with the mission computer via the onboard computer network based on regular communication protocols (CAN bus, Ethernet, RS485, etc).

All subsystems are based on the missile's aerodynamic characteristics, whether cruising or ballistic. Third-party products can replace any hardware or software for which the hardware and software interface can be developed.

The navigation can be based on inertial and satellite navigation, as well as integrated inertial and satellite navigation. In contrast, the homing heads are based on IR or visible light, cameras and video-processing hardware and software.

The mission computer performs system management, missile stabilisation (autopilot). and guidance per various guidance laws. Meanwhile, aerodynamic actuators and controllers are designed to meet the missile's mission requirements.

#### **ALAS FAMILY**

**5TH GENERATION CRUISE MISSILE** The ALAS (Advanced Light Attack System) family is based on a multi-role missile system developed for destroying targets such as enemy armoured tanks, industrial facilities and ships intended for coastal defence, and advanced radar systems. According to its characteristics. it is one of the most advanced solutions in the present arms industry.

Thanks to its INS (Inertial Navigation System) and imaging HH (homing head), the ALAS missile family is used to accurately track targets both on land and in water and conduct low-profile flight over terrestrial terrain, while avoiding conventional radar-tracking. Available in two main types, the ALAS missiles bring the latest advancements in artillery to meet today's considerable defence challenges.

• Find us on booth 07-D45

## Vampire hunters of Ukraine: The stakes are high

lust as vampires of legend hunt for blood at night, so too does Skyfall's 'Vampire' – a crucial asset in the ongoing Ukrainian war and one which helps provide what its manufacturer describes as offering some of "the best and most powerful" uncrewed aerial capability in the conflict.

Conceived in a garage and commencing production around the start of 2023. Ukrainian drone manufacturer Skyfall has since scaled exponentially to cover approximately 60 per cent of the Ukrainian battlefield with its products (including the Shrike family of combat-proven first-person view (FPV) drones).

With conflict an inherently dynamic situation, Skyfall stressed the ability to constantly update - especially within the electronic warfare (EW) domain – as essential, with little staying still longer than three months.

Alongside around-the-clock

customer support, ongoing R&D has also delivered additional capability requirements, including the world's only FPV drone capable of flying through water.

However, with Skyfall knowing how to scale production, the main bottleneck is export embargoes. revealed growth manager Olena Dushenok (European and US customers will have to wait until the war's conclusion).

"Fortunately or unfortunately. we're the holders of military expertise," she continued, adding that the Ukrainian system can also be "quite controversial" in determin ing exactly who gets deliveries of existing products, which, owing to obsolescence considerations, cannot be mass-produced months in advance.

Additionally, the documentation of new or updated products can potentially take longer than the development time itself. However, in the face of "huge demand," Sky-

fall is well-placed to meet evolving needs with flexibility – with the four-munition-capable Vampire

already in its third upgrade.

Advancements include upgraded airdrop systems, computer vision, and a Quattro global navigation

The latest Vampire drone has a maximum payload of 15kg and a flight time of 35 minutes with cargo

NEW BLOOD



satellite system (GNSS) antenna.

"The main lesson we've learned is that it's better to fight with technology, not people," she concluded, adding that the effective integration of a product into the ecosystem is also imperative.

## Schiebel set to sign second customer for upcoming S-300

The Middle East is a pertinent part of the world for Austrian UAV developer Schiebel, with the UAE Army the inaugural customer for its rotorcraft-configured Camcopter S-100 back in 2005. Twenty years later, with the

set to enter service at the end of 2026/early 2027, Schiebel

larger and more capable S-300 every continent with around attributes a significant presence in the region as indicative of a strong relationship spanning two decades.

Having sold a product to almost

45 customers worldwide, the upcoming expansion of Schiebel's UAE facility, announced earlier this year, will further serve to bolster synergy in the region – with the expanded Abu Dhabi facility to

produce S-300 units to fulfil "a significant contract" for the South Korean Navv.

"It's an important sign to be able to maintain that relationship over two decades," explained Michael Neufingerl-Ille, regional sales director for Schiebel Aircraft.

In development since the mid-1990s. the latest version of the S-100 is the result of constantly innovating to meet customer's evolving requirements, said Neufingerl-Ille.

The development of a new heavy fuel engine (as opposed to gasoline) around five years ago has proven so popular it is now looking likely to become the overwhelmingly-adopted option. while recent successful integration of the ISMAR NSP synthetic aperture radar (SAR) has also been completed ahead of schedule.

The upcoming triple-size, 660kg MTOW S-300 is already fully in production, offering an expanded endurance of more than 24 hours (equipped with camera and inverse synthetic aperture radar (ISAR)) or around six hours with a 250kg payload, making it the first operational VTOL in the 200kg class to achieve these capabilities.

The type is already under contract for one customer in Asia, with Neufingerl-Ille concluding that another contract for an additional customer in an as-yet undisclosed location is due "within a few months".





SAMI is at IDEX looking to strenthen and expand its partnerships with global defence leaders, writes Jill Stockbridge

## **SAMI showcases** Saudi-made solutions

Making its debut

at IDEX. SAMI

tactical vehicle

Land's light

(SLTV)

audi Arabian Military Industries (SAMI) returns to IDEX 2025 with a sizable stand in the Saudi Pavilion, showing its strength as a key player in the kingdom's growing defense ecosystem.

The company aims to use the event to strengthen and expand its partnerships with global defence leaders and to enhance collaboration in the development of new defence technologies and capabilities.

The SAMI stand demonstrates a number cutting-edge innovations and advanced products from across five of the company's divisions: SAMI Land, SAMI AEC, SAMI Defense Systems, SAMI Sea and SAMI Aerospace.

Making its debut at IDEX, SAMI Land's light tactical vehicle (SLTV) armoured unit is an upgraded version with enhanced specifications, giving greater protection and mobility for ground forces in high-risk environments. Also on display is the Saudi-made Ubayah vehicle, equipped with the ROAYA remote turret, highlighting 'made in Saudi' capabilities in advanced vehicle-based defence

SAMI AEC has the radar Al Rasid on display, a versatile surveillance system, alongside its very own drone in a box - eBaria. The division also highlights its advanced capabilities in mission systems and C4I (command, control, communications, and intelligence), as well as SAMI MRO, electronic warfare, and cybersecurity.

SAMI Defense Systems features advanced products from the AIC (Ammunition and Industrial Complex), essential to strengthening Saudi Arabia's defence arsenal. These products demonstrate SAMI's ability to manufacture and deliver high-quality, reliable ammunition designed to support both domestic and international

And finally, SAMI Aerospace is showcasing the Super Puma/Cougar NLG and Airbus A320 landing

requirements.

gear, reflecting the company's significant contribution to the kingdom's aerospace and aviation defence capabilities, while the Alsalam Aircraft Company mockups on the stand demonstrate SAMI's contributions to Saudi's aircraft maintenance, repair, and

#### Saudi-made innovation

manufacturing sector.

SAMI has a key role to play in achieving the defence sector objectives of Vision 2030, which includes localisation of 50 per cent of the kingdom's defense spending by 2030.

Figures announced by Saudia Arabia's General Authority for Military Industries (GAMI) last year show that the kingdom, historically one of the largest defence

importers worldwide, has raised the localisation rate from four per cent in 2018 to 19.35 per cent at the end of the last year of military spending.

SAMI has made major contributions to this development, with substantial progress in building local manufacturing capabilities, increasing the volume of locally-produced defence products, fostering strategic partnerships, and introducing successful initiatives designed to have a lasting impact on the broader defence and economic landscape of Saudi Arabia.

For example, in 2024, SAMI introduced several Saudi-made innovations, including the Hazem combat management system, Saudi Arabias first domesticallydeveloped integrated maritime security solution, which was introduced to the market last year.

Under the leadership of new



country focus A

The ROAYA remote turret is on display at this year's show

CEO, engineer Thamer M Al Muhid, and in support of the nation's Vision 2030's further goal of creating a skilled, diverse workforce in the defence sector, SAMI remains committed to developing local talent and its accomplishments in this area are a source of pride, registering 71 per cent Saudi nationals in its workforce of more than 7.000 employees.

The company has made targeted efforts to increase the number of qualified Saudi nationals holding key positions within its divisions, including encouraging women in leadership roles.

Through an ongoing series of educational and vocational programmes with local and international partners, SAMI actively works to ensure that the local talent pool is equipped with the necessary skills and experience, instituting training and development programmes designed to upskill the current workforce and develop the next generation of defence leaders.

Programmes such as the SAMI apprenticeship programme and the SAMI leadership development programme, enable the company to nurture a new generation of local talent able to drive the future of defence innovation and localisation in the kingdom.

While the rapidly-evolving company continues this focus on strengthening its local manufacturing and R&D capabilities, the leadership team is also looking to expand its international footprint, leveraging joint ventures and collaborations to enhance its global competitiveness.

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STRENGTHENING LEGISLATIVE & REGULATORY STANDARDS FOR DEFENSE INDUSTRIES

م جــــلس التـــــــــوازن TAWAZUN COUNCIL





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Mine clearance

Global Clearance Solutions is at the IDEX showcasing its solutions for the removal of explosive ordnance and humanitarian demining purposes

# Making the land safe

andmines, improvised explosive devices (IEDs) and other hazards like explosive remnants of war (ERW) have a chilling effect on a country's population and their daily activities during war and long afterwards.

Swiss-based Global Clearance Solutions – GCS (Stand C19-08) prides itself on leading-edge and safe technological and operational solutions for the removal of explosive ordnance.

Phillip Gross, GCS general manager representation office in Abu Dhabi, said: "We are proud to showcase our comprehensive portfolio of clearance solutions here at IDEX 2025, at such an internationally-renowned event.

"Our integrated services, combining unparalleled operational expertise with our own innovative technologies, guide our clients through every aspect of land release."

GCS is on the verge of delivering the third unit of its remote-controlled GCS-200 demining platform, one of the most modern of its kind, to the Ukraine. This follows earlier deliveries in late 2024.

According to GCS, almost a quarter of Ukrainian territory is believed to be contaminated by mines and other explosive

ordnance (UXO). To date, GCStrained operators in the Ukraine have cleared more than one million square metres of terrain.

At the Ukraine Mine Action conference held in Switzerland in October last year, Viola Amherd, president of the Swiss Federal Council, said: "Humanitarian demining is not only a matter of safety, but also a precondition for recovery, in particular for the resumption of agricultural production and the education of children."

The company's GCS-200 system, its flagship product, has consistently demonstrated superior performance, maximum safety, durability, and reliability, in various challenging environments during the removal of explosive ordnance.

"As a remote-controlled platform, the GCS-200 is designed for heavy-duty mine clearance tasks (anti-personnel and anti-tank mines) with maximum survivability in highthreat environments," said Gross.

"This platform can be equipped with additional attachments, such as a manipulator arm for clearing UXO and IEDs, to enhance its capability as a versatile multipurpose system for operations in hostile and post-conflict

He stressed that GCS has a team of experts with extensive experience in the provision of safe and high quality mechanical clearance solutions to global clients. "We are the only company using our own machines to power operational excellence worldwide."

GCS has worked with the United Nations, international NGOs, governments, commercial entities and security companies in more than 30 countries.

The international aid organisation Humanity and Inclusion (HI) commissioned GCS in 2018 to supply a mechanical landmine clearance solution for an EU-funded project to identify and clear areas affected by mines and ERW. The GCStrained local team made use of the GCS-200 demining platform.

Also in 2018 the company was awarded a United Nations (UN) contract to collect and destroy ERW in Libva, Similarly, in 2020 GCS was awarded another UN contract to conduct high-risk IED clearance operations in Iraq.

In addition to search and clearance tasks, GCS recruits and trains local staff to deliver emergency risk education (RE) to people returning to, or residing in, contaminated areas.

As in many countries where



The lightweight GCS-100 demining platform (left) alongside the GCS-200

GCS has worked, notably also Libya, Chad and Iraq, the company has sought to transition the clearance capability to local national clearance teams. GCS international experts provide guidance, advice and mentoring to an entirely national team, and are responsible for managing all elements of their operational activity, as well as a programme of continuing professional development.

The use of machines, such as the lightweight GCS-100 and the heavyweight GCS-200 platforms, can greatly reduce the toll on human life. Importantly, it increases the speed and effectiveness of landmine clearance and improvised explosive device disposal (IEDD).

Both platforms can be equipped with a number of interchangeable, custom-made attachments and tools. These provide a range of capabilities in the field of EOD operations and are able to deal with heavy IEDs and vehicleborne IEDs (VBIEDs).

GCS was established in 2015, with headquarters in Freienbach, Switzerland, and a production facility in Stockach, Germany, A







With the high seas increasingly becoming the scene of tensions between nations, UK company SRT Marine believes its maritime surveillance systems – already in service with several Middle East nations – will find a niche with more countries with coastlines. Alan Dron takes a closer look.

# SRT Marine's air traffic control – for boats

n increasing incidence of mysterious breakages of seabed power and internet cable; fleets of foreign trawlers illegally hoovering up vast quantities of fish on the edges of nations' exclusive economic zones (EEZ); and ever-growing traffic in people-smuggling, particularly into Europe. Potential flashpoints are proliferating across the world's seas.

Knowing what is happening just over a country's coastal horizon has rarely been more necessary. SRT Marine believes that it can help countries keep a watchful eye on their marine territory.

"Effectively, we supply air traffic control – but for boats," said SRT Marine's CEO, Simon Tucker.

Most nations do not have a method of overseeing what is happening off their coastlines and further out in their exclusive economic zones (EEZs).

According to Tucker, SRT Marine has been fortunate in having supportive shareholders who have enabled the company to develop its systems over many years, creating millions of lines of computer code and integrating it into a coherent structure.

SRT Marine has developed a system that a country can install and use to monitor what is moving in their maritime domain, from a trawler to a cruise ship.

The embedded AI in the system can tell operators whether a vessel seems to be going about its normal business, or whether its movements indicate something dubious, such as illegal fishing operations.

"The secret sauce in our offering is the software," said Tucker.
"Anybody can buy computer hardware, servers and radars, but it's the software that sits on top of it that integrates all of that.

"As a result of acquiring one of our systems, somebody like the Indonesian coastguard can sit in their HQ in Djakarta, see what's happening 2,500km away on the border with Papua New Guinea and decide if they have to send boats there.

"Ten years ago, we couldn't believe there wasn't a James Bondlike lair with big screens and people watching what's going on," said Tucker.

In fact, such all-seeing, all-knowing operations centres were largely non-existent.

SRT Marine has won contracts with several Middle East countries, notably Bahrain, Kuwait and Saudi Arabia. All involve maritime surveillance, but to different scales and combinations of equipment.

Typically, said Tucker, countries begin with a certain level of equipment and coverage, then gradually build on that base. "No country comes to us and says 'We want full coverage on day one'."

#### "Black Box"

It would require £1-2 billion (\$1.25-\$2.5 billion) to do that. Countries like Saudi Arabia and Indonesia started small and built up. "If you take a large country in the Middle East, they would start with a vessel identification system," said Tucker.

That involves installing a 'black box' on all that country's civilian vessels, then linking the ID signals they transmit to coastguard regional offices around the country, "so that they all see the same picture of maritime traffic on the same platform and can coordinate digitally, instead of a bloke with binoculars and a telephone".

The next stage is to add surveillance cameras at strategic locations, such as the Suez Canal's southern exit into the Red Sea. Finally, a country might want to add unmanned patrol vessels, controlled from its capital, to take a closer look at any suspicious ship.

The arrival of uncrewed patrol vessels makes the task of surveillance simpler and cheaper, said Tucker: "You don't want or need a boat with 30 people on it. It's a matter of creating a deterrent.

"That's the progression."

SRT Marine began last year with contracts with three countries.

That rose to five in 2024 and it expects to add a further two in 2025, with existing clients also likely to add further equipment.

Tucker pointed out that there are around 150 countries with coastlines. So, huge potential remains untapped.

# Cutting-edge solutions for military comms and situational awareness

Usama Assi, director global strategy defence at Frequentis speaks to Chloe Greenbank about the company's mission-critical communication information and surveillance solutions

s military forces worldwide navigate the evolving landscape of modern warfare, they face increasing challenges, including complex mission demands, rising cost pressures and the accelerated pace of combat.

According to Usama Assi, director global strategy defence at Frequentis: "Interoperability between different forces and countries is a priority in addressing these challenges. The integration of communications and sensor data management is a key solution, as is the ability to respond as rapidly as possible."

With more than 70 years of experience, Frequentis has a long-standing reputation for delivering mission-critical communication information and surveillance solutions. In the Middle East, the company has been supporting defence clients for more than two decades, working in collaboration with well-established local partners.

At this year's show it will once again partner with Bin Hilal Enterprises, a key supplier to the UAE armed forces, to showcase its latest innovations in defence and security technology.

"Visitors to our booth (Stand 01-001) can experience a demonstration of our tactical voice communications control system C-OTM (communication on the

"In the defence sector,
our focus is on the
deployability of our
systems, particularly in
austere environments.
Sheltered solutions can
be set up within hours,
ensuring immediate
operational capability
wherever needed"

USAMA ASSI FREQUENTIS

move), which enables interoperability between technologies and difference forces/ units," said Assi. "Breaking down communication silos is crucial for operational efficiency and speed. The ability to exchange sensor data seamlessly between different military forces and across borders is essential for effective joint operations and coordination."

In emergency situations where traditional communication channels may be compromised or unavailable, C-OTM functions as a mobile, rapid-response command centre. Lightweight and easy to deploy, it integrates with multiple local and remote radio networks, regardless of differences in technology. By operating across a range of telecommunications formats, C-OTM ensures that personnel remain connected with allied forces, providing instant access to shared radio assets.

Frequentis is also showcasing its

fixed and deployable digital towers, designed to provide operators with enhanced situational awareness. These towers feature augmented reality to overlay critical data, as well as advanced camera technologies, including infrared (IR), pan-tilt-zoom (PTZ) and full panoramic imaging. They also feature automated object detection for enhanced threat assessment and full sensor data integration for real-time operational awareness.

"Our deployable digital tower, set up in a military container environment, can be set up in a matter of hours with minimal operational disruption," Assi explained. "It provides a 360-degree digital view, integrating sensor, camera and radar data to create a comprehensive standard and thermal imaging display in all weather conditions."

Given the increasing geopolitical complexities across the globe, the demand for modular, rapidly-deployable systems continues to

grow. "In the defence sector, our focus is on the deployability of our systems, particularly in austere environments," Assi emphasised. "These sheltered solutions can be set up within hours, ensuring immediate operational capability wherever it is needed."

With the rising prominence of uncrewed aircraft systems (UASs) and artificial intelligence (AI) in modern military operations, Frequentis is also integrating these technologies into its solutions.

"We are leveraging AI for object detection in our digital tower technology and utilising augmented reality to consolidate mission-critical data into a single, intuitive display," Assi noted. "This not only enhances situational awareness, but also significantly improves the efficiency of controllers."

Beyond AI applications, Frequentis' unmanned traffic management (UTM) system also plays a key role in managing UAV operations. The system is designed to integrate with counter-UAV (C-UAV), aeronautical information management (AIM) and mission systems, ensuring real-time friend-or-foe detection for enhanced operational security.

Acknowledging the increasing demand for advanced communication and networking solutions in military operations across the region, the Middle East remains a key growth market for Frequentis. According to Assi, the company's role in the region is expanding beyond voice communication solutions to encompass secure data networking and mission systems integration.

"We are becoming an increasingly important partner in the military environment here," Assi concluded. "Our networking solutions enable the secure exchange of sensitive operational data, positioning Frequentis as a trusted partner for modern defence and security applications."



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# HIGH-RISE HEROES

Firefighting helos bring the rain

Victor Malikov, programme director of the aerial fire-fighting wo firefighting helicopters are on display at the Adnec Marina showing off their credentials in tackling highrise building fires in the UAE. A firefighting Black Hawk UH-60L of the UAE's Joint Aviation Command sits metres away from a Russian Helicopters Ka-32A11M equipped with the SP-32 fire extinguishing system.

The danger of fires in skyscrapers in congested and complex cities, such as Dubai and Abu Dhabi, has long been recognised as a major problem for fire brigades and emergency services and specially-equipped helicopters are seen as a major weapon in combating them.

The UAE military is testing and evaluating

The UAE military is testing and evaluating a Dart Aerospace SkyCannon system on the Black Hawk, made up of an 850-gallon water tank, supported by a 50-gallon foam one.

A JAC spokesman said: "We have been training on this system and evaluating it since 2022



to control high-altitude [high-rise] fires, initially to cool down the blaze before the fire fighters arrive. The cannon that fires the water is 7.6m long and can move 110 degrees to the right and 30 degrees down if required to be more accurate."

The SkyCannon was designed to control and contain high-rise fires by allowing the helicopters to reach beyond ground-based fire-fighting efforts, with a directed low-pressure, high-volume water stream. The system works with Dart water tanks to pump water through an extended boom off the nose of the aircraft to precisely target the blaze.

Onboard the helicopter, foam is pumped into the water tanks and fired from the long cannon fitted to the side of the helicopter or alternatively from a drop system. A hover pump positioned on the right side of the helicopter is lowered into the water, which is then sucked up into the tank. Alternatively, it can be extracted from a fire truck.

To configure the UH-60Ls for aerial firefighting requires the external stores station be taken off, which is currently restricting the number of these helicopters available to just three or four.

With the UAE government making plans for using the UH-60Ls equipped with the Dart Aerospace system, right across the Emirates, and Abu Dhabi being the first stop, that number is likely to be increased.

Russian Helicopters believes the tried and

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Sergey Viktorovich Chemezov is the CEO of Rostec Corporation

trusted Ka-32 offers a solution to the UAE's firefighting needs. "The coaxial rotor system of the helicopter gives it great stability," said Sergey Chemezov, CEO of Rostec, Russia's state export corporation. "It can successfully extinguish fires even in dense urban areas, between skyscrapers. At the same time, our equipment's reliability is known throughout the world."

In addition to the Ka-32A11M variant on display at the marina, there is also the recently-developed SP-32 fire extinguishing system. This was type-certified after three months of testing in December 2021 to replace the US Simplex Model 328 system that was developed for the Ka-32 in 2013.

Victor Malikov, programme director of the aerial fire-fighting Ka-32, said that the SP-32

is unique in that it can operate in temperatures of down to -30 degrees C.

"The Simplex system could not operate in temperatures that low; the SP-32 is unique and was the biggest challenge during winter testing," said Malikov. "We had to develop the flaps on the belly tank further after they froze during testing in St Petersburgh in late 2021."

The Russian SP-32 system can also carry more water, 4,200 litres, that can be filled in two and a half minutes by sucking up water through the hose that is dropped into the sea water. There are two options to extinguishing blazes, either through the water cannon firing directly into the building or from the belly tank, that drops directly onto the fire.

"It can fire from a distance of 40 metres, but we are developing a new system – replacing pump and cannon – that extends the range to 80 metres from the fire," said Malikov.

"In the conditions of high-rise buildings there are a lot of vortices, which are dangerous for helicopters equipped with the tail rotor," he explained.

"The pilot sitting on the left controls the fire-fighting system. The cockpit has been adapted with night vision goggles, but they are not used for firefighting, that would be difficult due to the brightness of the fire," he said.

More than 140 Ka-32s are flying in around 20 countries, but are not all unique to aerial firefighting. Russia and South Korea are the biggest operators of fire-fighting Ka-32s.

## Upgraded Russian 'through and through' VIP Mi-38 on display at IDEX

ne of the latest helicopters to be launched by Russian Helicopters is the Kazandesigned Mi-38-2, which made its first appearance in the region at the Dubai Airshow in 2019.

Russian

Helicopters

Ka-32A11M

equipped with the SP-32 fire

extinguishing

system is the

putting out high-rise fires

ideal solution for

While the original Mi-38-1 derivative first flew in December 2003, the large helicopter has been through subsequent upgrades and modifications.

The example on display is a VIP version. It can house up to 14 passengers, but in a normal passenger configuration 24-26 people can be carried.

The cabin height of 1.85m allows them to walk through the cabin comfortably. Air conditioning units are an option,

although the one here does not have them.

While the earlier Mi-38-1 helicopter was powered by Pratt & Whitney PW127 engines, that programme was abandoned and subsequent Mi-38-2s are now fitted with new Klimov TV-7-117Vs, allowing a maximum takeoff weight of 16,500kgs.

Other vital statics include a payload of up to 5,000kgs, maximum speed of 300km/h, a surface ceiling of 6,300m and a flight range of 880km. Everything now on the helicopter is Russian, including avionics and engine.

The latest VIP version of the Kazan designed Mi-38-2 can house up to 14 passengers



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Saab

Heléne Bittmann, managing director of Saab in the UAE, explains how the firm is expanding its product range and boosting its 'Emiratisation' on several fronts

# Saab tunes up its UAE presence

wedish aerospace giant, Saab is internationally acclaimed for its Gripen fighters, although in the UAE its likely the company is more renowned for the five GlobalEye intelligence surveillance and reconnaissance configured business jets flown by the air force.

But there is more to Saab than sophisticated military aircraft, as Heléne Bittmann, managing director of Saab in the UAE, recently explained.

"At IDEX 2025 we will be showcasing a new product on our stand, the Coast Control Radar, which is an exciting step forward in coastal and maritime surveillance."

Saab is bringing the power of AESA (active electronically scanned array) radar, a technology typically found in military applications, to civilian use. The Coast Control Radar leverages this advanced phased array technology, renowned for its reliability and performance, and combines it with Saab's deep expertise," Bittmann said.

"It's designed to provide exceptional detection and tracking capabilities for a wide range of objects, from small, slow-moving vessels to high-speed threats, ensuring comprehensive coverage and heightened security.

"The reliable flow of international shipping depends on the security of coastal waters and approaches to and from harbours and given trade interdependencies are global in nature, we believe that the market is ready for this product."

Developed in the UAE with a focus on reliability, ease of use, and operational efficiency, Bittmann said the Coast Control Radar is a comprehensive solution for safeguarding coastlines and critical waterways in an ever-evolving security landscape.

Saab has been operating in the UAE since the 1980s. Its



Saab is showcasing one of its newest products at IDEX, the Coast Control Radar

longstanding partnership with the government and local entities is built on trust, collaboration, and a shared commitment to advancing defence capabilities. Bittman said: "Over the years, we've tailored our operations to meet the UAE's unique security requirements while also contributing to the broader defence needs of the region.

#### **Empowering Emiratitalent**

"A key priority for Saab is supporting 'Emiratisation' and by providing opportunities for training and hands-on experience with advanced technologies, we aim to empower Emirati talent and strengthen the UAE's defence ecosystem," she added.

Saab's R&D and production facility at Tawazun Industrial Park (TIP) is central to these efforts, driving the development of advanced technologies like DeployNet, and the new Coast Control Radar. It also enables close collaboration with local partners to boost innovation and enhance supply chains.

"Looking ahead, we remain focused on expanding our regional footprint, deepening partnerships, and promoting UAE-developed technologies to address both local and global defence needs."

As we have seen with the wars in Ukraine and Israel/Gaza, the global landscape is rapidly evolving. So how would Saab address emerging defence challenges in such a dynamic environment?

"By focusing on innovation"
Bittman responded, adding: "Not only to address today's challenges, but also anticipate the needs of tomorrow, ensuring our customers are prepared in today's increasingly complex and unpredictable environment.

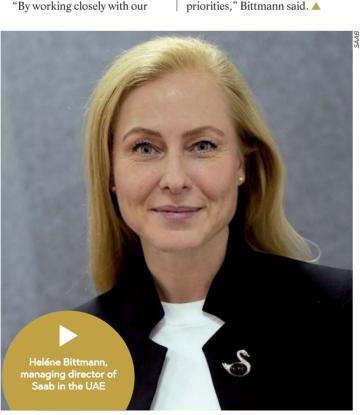
"Our advancements in software, sensors, and autonomous systems demonstrate how we are meeting these challenges head-on. Technologies like GlobalEye and our Giraffe family of radars work hand in hand with these technological advancements to provide critical situational awareness and enable faster, more informed decision-making, ensuring defence forces stay ahead of evolving threats.

At the same time, Bittman puts the emphasise on collaboration.

partners, we develop solutions that are tailored to their specific needs, ensuring they are equipped to face evolving threats. In this dynamic environment, Saab's mission remains clear; to deliver solutions that help protect people and societies while adapting to the dynamic global landscape."

IDEX continues to grow as a key platform for the global defence industry and Show Business asked the head of Saab in the UAE, what are the company's key objectives at IDEX 2025?

"IDEX has always been a significant event for Saab, offering a valuable platform to connect with customers and partners, showcase our innovations, and engage with the global defence community. IDEX gives us the opportunity to demonstrate how our solutions align with the region's needs and priorities," Bittmann said.





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