



SHOW BUSINESS



DAY
4

IDEX/NAVDEX SHOW DAILY / ABU DHABI / FEB 20 2025

HOW CAN
COMBAT-
PROVEN
AIR DEFENSE
DEFEAT
TOMORROW'S
THREATS?



Buzzing show sets new benchmark



As the curtains close on the IDEX-NAVDEX show tomorrow evening, there is no chance that Humaid Al Dhaheri will be sitting on his laurels. The managing director and group CEO of the Abu Dhabi National Exhibition Center (ADNEC) group is already planning on building from this year's record-breaking show. "IDEX and NAVDEX are economic powerhouses, generating billions of dirhams in investments, trade agreements, and strategic partnerships," Al Dhaheri said.

CONTINUED ON P24

READY TO BITE



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in that on-going deadly fight."

Equipped with 360° cameras, it provides comprehensive surveillance and situational awareness in the heat of battle. Its eight interchangeable wheels enable it to traverse challenging terrain with ease and agility. "Its ability to navigate rough terrain and provide real-time visual data makes it a valuable ally in high-pressure situations,"

said TAG Dynamics. With more than 30 years' defence industry expertise, TAG Dynamics, headed by chief executive Mahmoud Gharghar, specialises in the design and manufacturing of armoured and other vehicles. On show here are the recently-unveiled ARX NS-II MRAP, an infantry squad vehicle and a line-up of armoured personnel carriers. ▲

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▶ HH Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai tours IDEX with Humaid Al Dhaheri, MD and group CEO of ADNEC group



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CONTINUED ON P24

TAG SPIDER READY TO BITE

TAG Dynamics is showing its Sicarius unmanned ground vehicle (UGV) for the first time here, demonstrating how a UAE company can bring innovative home-grown products to market in tight timescales.

The UGV is named after the most venomous spider in the world. Although diminutive in size among its larger vehicle counterparts, the Sicarius is attracting attention. Developed fully in-house at TAG's manufacturing plant in Ras Al Khaimah, the 8x8 Sicarius is punted as an advanced exploratory vehicle with light-assault capabilities.

"Sicarius can be operated in a squad of eight vehicles, depending on mission requirements," said design manager Dmitry Ushakov. "For each vehicle an operator sits in a stand-off position fitted with a virtual reality headset to control it and fire the weapon."

Ushakov is heading a recently-formed robotics department in TAG Dynamics (Stand 09-A70). He explained that the Sicarius can be equipped with a range of weapon systems, from the 12.7mm Browning machine gun to an 81mm self-loading mortar.

Designed for a payload capacity of 600kg, the robust UGV can be



GR8 EXPECTATIONS
TAG design manager Dmitry Ushakov with the Sicarius UGV

customised for various missions, including medevac, transporting injured troops from the battlefield.

"We have received much interest from customers around the world, especially the Middle East and Africa, but also elsewhere," said Ushakov. "In Latin America for example it can combat drug cartels who are often heavily armed. Sicarius can make a huge difference

in that on-going deadly fight."

Equipped with 360° cameras, it provides comprehensive surveillance and situational awareness in the heat of battle. Its eight interchangeable wheels enable it to traverse challenging terrain with ease and agility. "Its ability to navigate rough terrain and provide real-time visual data makes it a valuable ally in high-pressure situations,"

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Korean manned-unmanned ahead of the game?

The concept of performing manned-unmanned operations is closer than ever to becoming a reality. Here at IDEX there are several companies showing their solutions – Korea Aerospace Industries, Dassault and Turkish Aerospace Industries.

The latter appears publicly to be the most advanced. Air-launched effects (ALEs) have already been fired from pods attached to the side of helicopters, like the KAI light-armed helicopter (LAH) and marine attack helicopter (MAH) that can mission-control ALEs while undertaking missions such as intelligence, surveillance, and reconnaissance (ISR) and electronic warfare (EW).

There are now bigger plans for drones to work with the fifth-generation KF-21 fighter and FA-50 light combat aircraft that KAI refers to as air adaptable platforms (AAPs).

KAI's Kim Ji Hong said: "Several demonstration flights have taken place with 80 per cent scale-sized AAPs and our ambitious target is to demonstrate a FA-50 controlling full-size AAPs at the ADEX airshow in Seoul, South Korea [October 29-November 2].

"Command and control of the AAPs will start later this year, focusing on ground control before being transferred to the air. The AI pilot technology being implemented and developed in a test drone should be integrated into the AAP this summer," he said.



BillyPix

MUM'S THE WORD
Publicly, KAI appears to be well ahead of most with its Manned-Unmanned Teaming (MUM-T).

"We can then transfer this AAP technology to work with the KF-21 to meet a 2031 requirement, although this could be expedited, if the customer requires.

"A UCAV is also being designed to control the AAPs, we have completed the structural design for all this, and our target is to have this operational by 2035 – earlier if required," said Kim.

Elsewhere, Dassault has a 1/5 scale model of a UAE Air Force and Air Defence Rafale with a nEUROn UCAV at its stand.

Last October, a French government official announced the development launch of the UCAV will complement the future Rafale F5

standard after 2030.

The nEUROn programme brought together the aeronautics resources of six

European countries, managed by Dassault Aviation. nEUROn completed its maiden flight in December 2012 and more than 170 test flights had been conducted by October 5.

Turkish Aerospace Industries is developing the Kaan fifth generation fighter that will work with the stealthy-looking Anka III UCAV that made its first flight in December 2023. Plans will also see the Anka III carrying the Super Simsek high-subsonic multi-mission UAS, although the time-lines are unclear.

Dearsan barges into Qatar

Turkish shipbuilder Dearsan is following up its first contract in the region – two fast attack craft for Qatar – with a proposal to provide a naval presence on some of the emirate's small offshore islands.

The company has submitted a proposal to Doha to build 'base barges' – floating accommodation for naval personnel – that could be towed to wherever they are required.

The vessels would have a self-protection capability, although this may be limited to small arms.

While the proposal is being considered, Dearsan is pressing on with work on the two 50-metre missile attack craft; delivery is scheduled for around two years from now.

The vessels, which are Dearsan's first order in the region, will be "very competitive vessels in the region", said the company's business development manager, Erkan Yeniceri.

The 320-ton units will have a maximum speed of 36kts and an endurance of up to 1,000nm.

Main armament will consist of four Roketsan Atmaca ship-to-ship missiles, a 40mm cannon from Leonardo, plus 2 x 25mm and 2 x 12.7mm guns from Turkey's Aselsan.

SHOW BUSINESS

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Six-engine variant of Skystream's Storkdrone under development



BillyPik

UAE-based Streit Group subsidiary Skystream is developing a six-engine version of its VTOL Storkdrone, with the new variant to be available within the year.

With the company only established less than a year ago, its flagship UAS is already in service with government and private clients across a range of missions,

including surveillance, monitoring, aerial mapping and military applications. For the latter, it can be equipped with an additional first-person view (FPV) drone carrying munitions.

Operated by a remote pilot or a software programme, the Storkdrone is available with four internal combustion engines or fully-electric power trains, both offering a maximum flight time of up to 120 minutes and a maximum take-off weight (MTOW) of up to 5kg.

Skystream's Artem Shchegolkov with one of the Storkdrone units

Edge and Leonardo enhance partnership

Edge and Leonardo announced yesterday that they had signed an agreement at IDEX to further enhance their partnership in developing solutions across six critical domains.

The agreement aims to strengthen existing synergies and capitalise on new complementary opportunities for deeper cooperation focusing on key domains: airborne capabilities including radar – particularly for multi mission aircraft; anti-tactical ballistic missile defence; counter-drone and mobile surveillance systems; naval combat management systems; radio communications; and optronics commander sight.

Hamad Al Marar, Edge Group managing director and CEO, said: "This important step marks the next phase in our existing strategic agreement with industry

leader Leonardo, building on the opportunities presented by the strong relationship between the UAE and Italy.

"Fundamentally, however, it reinforces our vision of growth through mutually beneficial partnerships, ensuring a win-win approach to sourcing and realising complementary multi-domain opportunities across the world, and expanding these synergies for continued economic growth, innovation, and excellence, all in support of the sustainable preservation of security."

The agreement is a precursor to a structured partnership focused on jointly marketing these products and solutions to governments across multiple countries. It also commits to the development of shared intellectual property (IP) and future design innovations.



Edge

Lorenzo Mariani, co-general manager of Leonardo and Hamad Al Marar, Edge Group managing director and CEO signed a deal for closer co-operation on February 18



BillyPik

CATIC AR-2000 UAV in use with Chinese Navy

Still undertaking its final phases of flight testing, the CATIC AR-2000 uncrewed helicopter is already in operational use, revealed the Chinese manufacturer.

Designed primarily for the naval domain as a reconnaissance and strike platform, but also of use in a land domain, the two-ton class utility aircraft can also be used for transportation purposes.

Other potential missions include maritime law enforcement, anti-terrorism and anti-riot, and communications relay, explained CATIC.

'Perceptra' GPS-less UAV navigation system launched

Abu Dhabi's VentureOne, a Technology Innovation Institute (TII) entity, has launched its new 'Perceptra' GPS-less technology designed to deliver resilient UAS operations in contested environments. Featuring visual relocking, low navigation errors and easy integration across platforms, the vision-based system is part of a "more comprehensive air autonomy and security portfolio that

will play a central role in the future of drone operations," explained Reda Nidhakou, acting CEO of VentureOne.

Perceptra was unveiled at IDEX alongside 'Saluki', its adjacent high-security autonomous flight control technology. Both have been adopted by UAS systems manufacturer ADASI to provide GPS-independent navigation and AI-powered mission control for its next-generation UAVs.



75% of Exhibition Space Sold for WDS 2026

The World Defense Show Wraps Up a Phenomenal Week at IDEX



As IDEX 2025 comes to a close, World Defense Show wraps up the week on a high note of success, securing three-quarters of its floorspace a full 11 months ahead of the event. Leveraging the opportunity to engage with partners, industry leaders, potential exhibitors, and global media, WDS announced its 2026 theme, “The Future of Defense Integration,” along with groundbreaking new show features and impressive growth statistics, highlighting the event’s ever-expanding global footprint.

The on-the-ground team executed over 350 high-level meetings and tapped into previously unexplored markets, adding five new countries to the list of participating nations for 2026, including

Japan, Malaysia, Thailand, Finland, and Kazakhstan — proving its role as a truly global event.



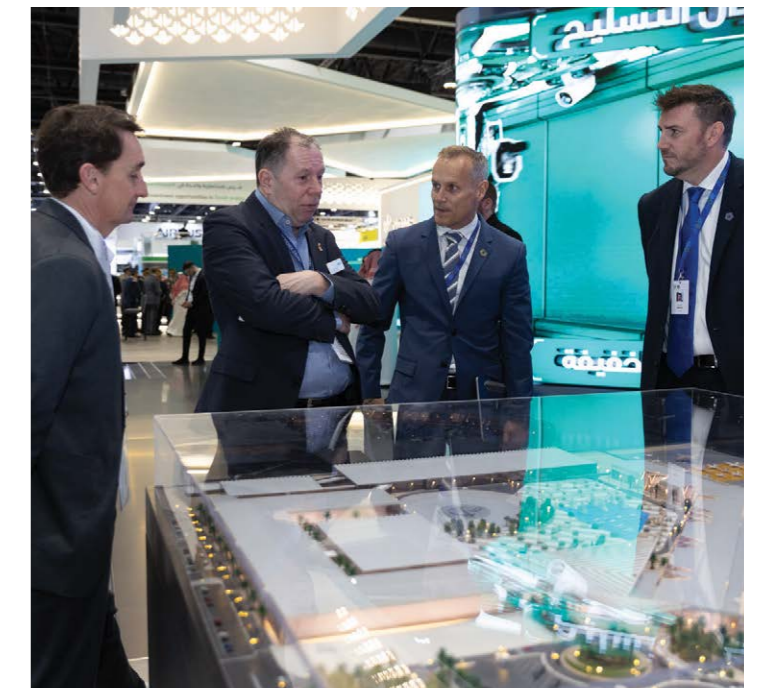
Additionally, four new sponsorship agreements were signed at the WDS stand. Exclusive Interviews and Industry Insights throughout the week of IDEX 2025, the World Defense Show team also held in-depth interviews with key exhibitors who made a significant impact at WDS 2024 and are committed to returning in 2026. These conversations offered a deeper look into how companies are advancing Saudi Arabia’s defense ecosystem, fostering economic growth and developing local talent, ultimately furthering Vision 2030 goals to localize 50% of defense expenditures, and how vital WDS is in supporting their ambitions.

In a conversation with the World Defense Show team, Joseph Rank, Saudi Arabia and Africa Chief Executive of Lockheed Martin, shared his enthusiasm for WDS 2026, stating, “It is rapidly becoming the region’s biggest defense show, offering unparalleled access to global leaders. We will have our top leadership present and look forward to meaningful engagements and major announcements.”

As a catalyst for economic growth and global stability, World Defense Show is a one-of-a-kind platform where industry leaders converge to unlock

opportunities that drive global progress. Amplifying the impact of innovation, new features and expanded space in 2026 will enhance strategic networking, foster knowledge exchange, and drive collaboration across all domains of the defense ecosystem — air, land, sea, space, and security.

Andrew Pearcey, WDS CEO, said: “We are excited to announce that WDS 2026 is yet again surpassing the success of the previous edition. The next show will be larger in size and broader in scope, with increased international and local participation, expanded exhibition space, and a stronger focus on technological advancements, zooming in on unmanned systems and AI advancements. We have introduced a range of important new features to promote further integration across the full spectrum of defense operations and deliver attendees an unmatched experience.”



Step into the future of defense at World Defense Show 2026. With only 25% of floorspace left, don’t miss the chance to explore groundbreaking advancements, engage in impactful discussions, and contribute to the conversations that are shaping the evolution of global defense.

Daily news updates on timesaerospace.aero

GREEN POWER TURBO-PROP ENGINE TPE-200

The TURBO-PROP ENGINE TPE-200 from Green Power Company is a notable advancement in aviation propulsion technology, designed to provide reliable and efficient performance. The TPE-200 turbo-prop engine's design allows for efficient energy conversion from fuel into mechanical power suitable for propelling aircraft

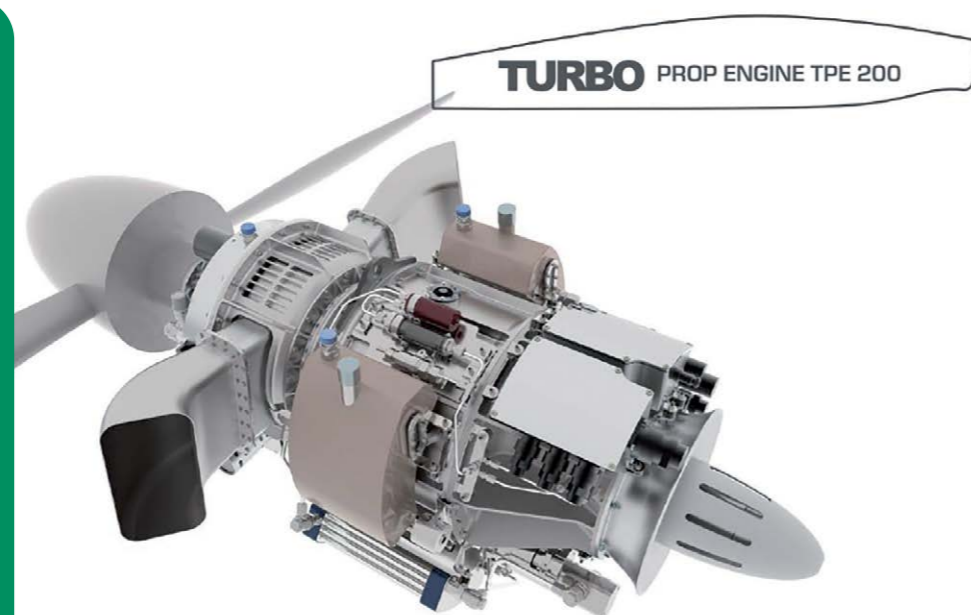
KEY COMPONENTS & CHARACTERISTICS

RADIAL COMPRESSOR This component compresses incoming air, increasing its pressure before it enters the combustion chamber. This helps in improving efficiency and power output.

ANNULAR COMBUSTION CHAMBER This chamber mixes the compressed air with fuel and ignites the mixture to produce high-temperature, high-pressure exhaust gases.

RADIAL HIGH-PRESSURE TURBINE This turbine is driven by the exhaust gases from the combustion chamber, converting thermal energy into mechanical energy to drive the compressor.

SINGLE STAGE AXIAL POWER TURBINE After driving the high-pressure turbine, the exhaust gases pass through the power turbine, which extracts additional energy to drive the propeller.



ROTATIONAL SPEEDS

Engine RPM	62,000
Power Turbine RPM	40,000
Propeller RPM	2,200

The significant difference between the rotational speeds of the engine, power turbine, and propeller indicates a reduction or gearing mechanism that allows lower RPMs at the propeller for effective thrust generation while maintaining higher RPMs in the engine for performance.

SEA LEVEL STATIC PERFORMANCES

- Thrust 485daN;
- SFC for power 0.46Kg/kW.hr;
- Total Life 500h;
- Number of Starts 100;
- Continuous Operating 5h;
- Maximum Diameter 360mm;
- Propeller Diameter: 1.9m;
- Length 1,300mm;
- Dry Weight 70kg;
- Fuel JET A1, JP-8;
- Maximum start height 4,000m;
- Maximum operating height 9,000m;
- Maximum Mach number: Mach ≤0.6;
- Air mass flow rate: 1.25kg/s;
- Lubrication system closed oil system;
- Control system Digital control unit;
- Starting electric starter

● Find us on booth 07-D45

FADA edges towards satellite decisions

Edge Group's new FADA space unit is on the cusp of picking partners for its plans to deploy a synthetic aperture radar (SAR) and Earth-imaging satellite capability as part of the United Arab Emirates wider ambition to build out its autonomous defence capabilities, said Waleid Al Mesmari, Edge's

with the FADA space unit president of space and cyber technologies. Set up officially in September, Al Mesmari said FADA is moving quickly on a 10-year plan to develop indigenous space capabilities. "The idea is to have a fully vertically-integrated company that focuses on upstream capabilities,

which is satellites and payloads, to have midstream capabilities, which focus on the manufacturing and the operation of the satellites, and to have ground station capabilities, which will help in Earth observation, in space situational awareness and space domain awareness."

FADA is likely to name its industrial partner for the SAR system in the coming weeks, Al Mesmari said. The goal is to start deploying the constellation called Sirb, the Arabic term for a flock of birds, toward the end of 2026.

The UAE began deploying space-based SAR capabilities last year when it launched the Foresight-1 satellite in partnership with Iceye.

Next on the agenda is finding a partner for an Earth-observation constellation that FADA aims to start launching in 2027. It is intended to have sub-metre resolution. Al Mesmari said the company also wants to have infrared-imaging spacecraft. FADA is looking for overseas industrial partners to

gradually build local expertise in the UAE to bring satellite design and manufacturing capabilities into the country.

Al Mesmari said FADA is also working with local partners, in particular the Technology Innovation Institute, to, for instance, infuse large language models into its data analytics tools.

Although Edge is largely focused on the UAE's national security efforts, Al Mesmari said the Earth observation tools are also intended to aid in environmental monitoring, urban planning and potential disaster relief efforts. FADA is also in talks with potential partners to sell spare imaging capacity to customers elsewhere, he added.

Launchers are conspicuously absent from FADA's near-term plans to make the country autonomous in space.

Al Mesmari noted that the company doesn't want to focus on too many things, though added "we are not eliminating that option."

PICKING PARTNERS

Edge's Waleid Al Mesmari with the FADA space unit



Bombardier's very special mission jets

Over the last decade or so, the Bombardier Global Express – both the 6000 and more recently the 6500 series – have become the customer's platform of choice when it comes to special mission aircraft.

Steve Patrick, Bombardier Defense's vice president specialised mission aircraft (pictured), explained here at IDEX, why the two business jets have established such a niche in the market.

"The range, performance and reliability are great attributes, but it comes with a lot of extra electrical power. We've got four genera-

tors on the aircraft [powered by the two Rolls Royce BR710A2-20 engines]. Other aircraft in this class only have two. So it has got excess electric capability, enough space for an ample payload and ample carbon volume.

"We deliver the platform with the airframe modifications and the mission integrators work with MROs to fit the systems."

The UAE Air Force and Air Defence operates five Global 6000 GlobalEye airborne early warning and control (AEW&C) platforms, delivered between 2020-2024.

Elsewhere, the US Army has up

to 14 Global 6500s on order under the HADES (high accuracy detection and exploitation system) programme, the USAF has 10 Global 6000 E-11A BACN (battlefield airborne communications node) jets on contract with the ninth now on the production line.

Germany (three Global 6000s for SIGINT) and Turkey (four Global 6000s for stand-off jamming) have platforms on order that are being missionised.

"If you look at today's mission requirements, it has evolved from



30-40 years ago when it was all mainly European-based, and you could patrol the border of your adversary from a base relatively nearby, said

Patrick.

"Now, if you look at Indo-China, you've got the Pacific Ocean, so you can't quite launch from right next door and perform your surveillance mission. You need an aircraft that has long range, can fly at high altitude giving you a longer physical loop distance, and a much larger surveillance footprint.

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Temsah-5 shows its snappy side

The Egyptian defence industry is at IDEX including its engineering arm Armada Industrial Engineering Complex, which specialises in armoured vehicles.

The company is displaying its Temsah-5 at the show, one of its latest Temsah (meaning crocodile in English) family of wheeled

armoured vehicles designed to be used as scout and utility combat vehicles.

The Temsah-5 is a light 4x4 armoured vehicle that is designed to conduct patrol or to be used as a cargo vehicle in desert conditions. The layout of the vehicle is based on a pick-up design with the engine at

the front, crew and troops compartment in the middle, and cargo area at the rear.

The Temsah-5 is based on a civilian Toyota chassis that has been configured and modified to respond to the needs of military and security forces. The front of the vehicle is fitted with two large bulletproof windcreens while each side of the hull has two doors that open to the front, each equipped with firing ports.

One additional door is located at the rear of the troops compartment, which has a small bulletproof window and one firing port. The vehicle has a combat weight of 3,300kg with a maximum payload of 700kg.

The roof of the vehicle is fitted with a one-man open-top turret, which is armed with one 12.7mm heavy machine gun. In the open position, the hatches provide armour protection for the gunner.



SEE YOU IN A WHILE
Armada's Ahmed Awaad alongside the Temsah-5 ('Crocodile in English')

NEWS IN BRIEF

General Atomics teases mystery projects

What goes on at IDEX may be serious business, but General Atomics has decided to also have some fun. On its social-media channel, the uncrewed air system maker has dropped a hint at some partnership with Shield AI and also of a small exportable UAS. Accompanying the tease is a blurred image of an Avenger UAS with the company's logo and Shield AI's superimposed. It's unclear what the two are cooking up, though it could indicate software specialist Shield AI running some of its code on a General Atomics Avenger. The mystery exportable UAS is nowhere to be seen, and General Atomics suggests its debut will come at another show. Stay tuned.

Calidus producing more B-250 prototypes

Calidus now has three more B-250 prototypes being built at its Abu Dhabi facility, earmarked for development and certification of the type.

They are representative of the 12 aircraft on order (and 12 on option), known as 'P12' by the UAE Air Force and Air Defence.

The first (001), according to one source, is expected to fly soon and will feature both ground attack and advanced mission trainer configurations. The B-250 is being designed for missions such as close air support, intelligent surveillance and reconnaissance, persistent air support, counterinsurgency as well as training.

All three new prototypes will be involved in several flight test campaigns to speed up the certification of the mission systems – such as electronic warfare, stores management system and weapons integration.

The example found at the Calidus stand in the outside area, B-250T (SN981) is wearing an orange colour scheme, while the second prototype, B-250 (SN982) is in a grey scheme.

The Desert Sting 16 and Desert Sting 25, as well as Halcon P32 Thunder precision-guided munition, are all being integrated for the ground attack role.

One surprise addition to the aircraft's armoury was Calidus's own Alheda (name for Falcon who flies from fire to fire) air-to-ground weapon. Initially a ground-to-ground weapon, housing high-explosive fragmentation and high-explosive anti-tank warheads, integration of the air-launched weapon is ongoing.

Progress with the B-250T trainer version is not as rapid as the B-250 version as the UAE Air Force and Air Defence is still considering all its basic trainer options.

In addition to

the 12 on order, with 12 options for the local customer, announced in a \$620 million deal at Dubai Airshow 2019, another eight are also being built in the WX-80 configuration specifically for the cloud-seeding or rain-maker role. Flight tests are currently ongoing.

This modified B-250 houses a weather radar to continuously

monitor the atmosphere and to optimise the deployment of cloud-seeding materials to encourage the formation of raindrops.

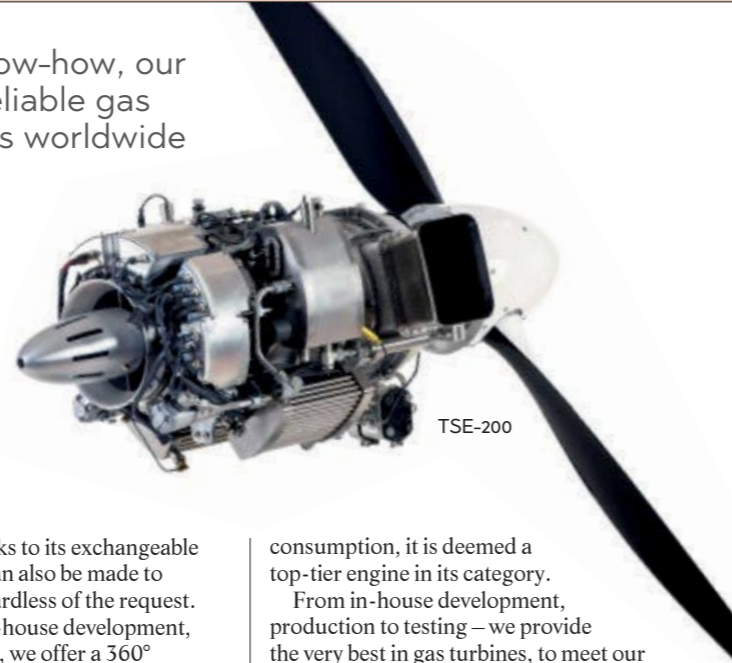
According to a source, Calidus is expecting a substantial order for the B-250 from its first export customer by the end of the year, but no one at the stand was willing to name the country.



CITRUS CALIDUS
Orange liveried Calidus B-250T 981 at the company's stand

By employing advanced technology and know-how, our company produces affordable, clean and reliable gas turbines and delivers them to our customers worldwide

EDePro gas turbine solutions



These solutions are designed for numerous products, including small turbojets for UAVs and target drones and custom solutions for complex power plants for turboshaft helicopters and turboprop aeroplanes. In addition, all the solutions are digitally controlled, and online condition monitoring is incorporated. However, these are not our only services concerning gas turbines – if required, we can also provide our customers with the necessary training and technology transfer for selected gas turbines.

customer's needs thanks to its exchangeable nozzle. Adjustments can also be made to the engine mount, regardless of the request. Given our complete in-house development, production and testing, we offer a 360° approach to operations and maintenance of our customer's solutions.

AN EXPENDABLE ENGINE WITH ONE OF THE MOST COMPACT AXIAL COMPRESSORS

Having stemmed from EDePro's long experience of engineering high-performing, cost-effective and reliable solutions, the TJE-200 is a simple, yet modern engine, comparable with all expendable TJE's produced today.

Displayed for the first time at the IDEX 21 in Abu Dhabi, the TJE-200 is ranked among first-rate engines, and it can be on a par with the engines of only few selected global manufacturers. This engine can be used in a wide variety of target drones, cruise missiles, unmanned aerial vehicles and other unmanned systems, and it can be modified in accordance with the client's requirements.

The TJE-200's design is lightweight and compact, consisting of a three-stage axial compressor, an annular combustion chamber and a single-stage axial turbine. With a generator power of 1 kW, the engine can reach a maximum thrust of 185 daN and a speed of 39,450 rpm (but, for a short time, it can run at 42,000 rpm). It can also function with a 5% smaller nozzle, which increases the thrust by 7%.

Moreover, due to its ground and in-flight starting, its flight start that entails windmilling and a pyro-starter, and its low fuel



DEPENDABLE, COMPACT, HIGH-PERFORMANCE JET ENGINE

The TJE-45 has been developed as an expendable, robust and reliable jet engine with fewer components. The key parts of this engine are the centrifugal compressor, the radial turbine and the annular reverse-flow combustion chamber. The rotor components are arranged in a back-to-back concept, so that both ball bearings are inside the engine's cold zone. The combustion chamber uses airblast atomizers, meaning that there are no sensitive elements that can cause failures and lastingly compromise the engine's reliability. Shortly after being displayed at the IDEX 21 exhibition in Abu Dhabi, the TJE-45 became one of the most popular jet engines on the market because of its robust design, small diameter (168 mm) and ability to run in harsh operating conditions.

With a maximum thrust of 43 daN and a maximum speed of 83,000 rpm, the engine is suitable for various target drones and cruise missiles. It comes with a 150 W generator, fuel system, pneumatic starter (or pyrostarter), electronic control unit and spark plug.

This engine can be easily adjusted to the

consumption, it is deemed a top-tier engine in its category.

From in-house development, production to testing – we provide the very best in gas turbines, to meet our client's specific needs.

TURBOSHAFT POWER – FROM DESIGN TO TESTING AND CERTIFICATION

Used in applications that require a sustained high-power output, high reliability, small size, and low mass, the TSE-200 is representative of EDePro's gas turbines family for light helicopters, UAVs, and auxiliary power units.

The maximum continuous power mode is 150 kW and the operating altitude is up to 7,000 m, both at low and high temperatures. It can be started at temperatures between -40°C and +50°C without preheating. The engine's configuration is based on a back-to-back radial compressor and turbine gas generator along with a single-stage axial power turbine connected to the gearbox. The main technologies used are investment casting, laser welding, and CNC machining. Due to the unique combustion chamber design, it can run at almost all known fuels.

Digitally controlled with online condition monitoring, TSE-200 is equipped with an electric generator and a digital engine control unit (ECU), which controls the acceleration and deceleration, and provides cooling of the engine nozzle and turbine during the auto-stop procedure.

The Controller Area Network (CAN bus) is used to maintain communication between the engine control unit and other devices, as well as other purposes, such as data collection, machine state monitoring, real-time diagnostics, and many more.

End-to-end design and production of TSE-200 are followed by engine testing at our turboshaft test stands and jet propulsion laboratories – where air-breathing engines and their components are assessed.

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MBDA sees strong loitering munition demand

MBDA is pushing to complete development of a new diamond-shaped loitering munition in the next 1.5-2 years to meet burgeoning demand.

The European missile maker is looking to complete development of the new weapon with local partners in the UAE, says Patrice Hajjar, MBDA vice president for Middle East sales and business development.

The initial version of loitering munition is intended to have a take-off weight of 6 kg, dive speed to attack targets of 270 km/h, and carry a 2.5 kg warhead, though could also come as an intelligence collection system carrying a sensor.

MBDA plans to use a tube-launching system for the munition that would have potential applications for use from the

ground, ships and also helicopters, Hajjar said.

One of the target sets for the tube-launched systems is uncrewed surface vessels, Hajjar said. The region has long had concerns about crewed small boats swarming to attack larger vessels and the USV threat is now also growing. The munition would come with its own swarming capability, he added.

The system would have automatic target recognition software to help operators spot the threat while the munitions loiters over an area.

MBDA sees a need to move with speed to complete the development. "There is a time to market constrain," said Hajjar, adding that rivals are coming into the market and customers are

eager for answers to threats now.

MBDA is already in the development phase of the weapon that has a range of about 50 km. The company is looking at ways to use swarms of them to deal with mass attacks.

MBDA has devised the weapons concept to be scalable. While the initial design has a 1.2-meter wingspan, concepts exist for a ten-fold increase, although officials acknowledge that size may not be operationally practical and that smaller growth versions are more likely.

The partnership with the UAE

ON TARGET
MBDA's Patrice Hajjar with the diamond-shaped loitering munition



would expand a relationship that also includes work on the Smart Glider and Smart Cruiser air-to-ground weapons being developed for eventual use on the Dassault Rafale fighter for use in suppression of enemy air defense and other missions.



SPOOK-TACULAR
Two years on the Jeniah UCAV continues to evolve

Jeniah evolution

Two years on from being unveiled at IDEX 23, the Jeniah (Arabic for ghost) UCAV has clearly evolved. The first significant modification to the model, which is a newer version from 2023, is the electro-optical targeting system (EOTS) positioned under the nose.

The EOTS uses infrared imaging to detect and track targets, as well as laser designation for guiding precision munitions, without adding external targeting pods that would make it less stealthy.

Elsewhere the undercarriage doors are now jagged and while no power plant has been selected, there are aspirations to acquire

a turbofan engine, with Edge having been in discussions with engine manufacturers to meet this requirement.

Positioned next to the Jeniah is a Halcon P32 Thunder precision-guided munition, two could be housed in the weapons bay.

The low observable high-speed UCAV, which will be used for manned-unmanned teaming operations, is not expected to fly for a year or so, but obviously by 2030. This is when the Rafale F5 is expected to be launched with the Dassault nEUROn UCAV for manned-unmanned teaming and the Jeniah could be ready.

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“David and Goliath” – AI-enabled drones fighting for Ukraine

There’s nothing quite like designing, developing and testing a product in an active war zone to sharpen a company’s technological focus, and Kyiv-based Global Mark – official supplier of DJI and Autel drones in Ukraine and manufacturer of solutions – is no exception.

While the ongoing conflict remains the subject of heightened geopolitical conversation in recent weeks, Ukraine continues to push forward on the domestic design and development of its own UAS solutions.

Global Mark produces items across multiple domains encompassing land, sea and air, with the ongoing conflict a reality, described by GCC market lead Ksenia Ilyashenko as an ideal

(if unwelcome) “training ground” to test its developments.

Crucially, she cited the constantly-developing technology as “obsolete within six months,” highlighting how previous drone designs are already out of date.

“This is where our expertise is,” she continued,” stressing Global

Mark’s ability to constantly adapt the drone’s frequency, payload, and energy source as imperative.

“We don’t know what we’re going to develop, but we have the ability to react and adapt to the challenges.”

As such, the need for international partners to support Ukraine’s domestic research and development capacity takes precedence over delivery of ready-made devices.

“We live through this. We know what’s there and we have the talent and capacity to develop solutions,” explained Ilyashenko.

In what Elon Musk recently described as “a war or robots and technologies,” the Photon FPV drone – already

operational – represents a way in which the growing capabilities of AI can be leveraged to expand UAV capabilities.

With a diminutive diameter of up to 15 inches and a weight of just 2.5kg, the 7kg payload device has an operational range of up to 20km and can also be equipped with daytime, night vision or thermal cameras.

AI-enabled tracking allows automatic target tracking from activation (from a distance of up to 1,000m), with Ilyashenko “very confident” in the capabilities of what she termed a “David and Goliath” device.

“Being a team that is ready for constant change, we live with expectations of surprise every day,” she stated, highlighting that AI is likely to play an increasingly important role in drone development.



Brain-in-a-box: AI-enabled capabilities of the drone

Orbotix targeting drones more effectively

‘Turning Threats Down, Protection Up,’ is the message from Polish company, Orbotix, which manufactures the Autonomous Target Acquisition (ATA) system, an innovation in drone technology.

“It is an all-in-one software solution that allows operators to make faster, better decisions through AI-driven insights, autonomous deployment of

swarms and authorising precise drone actions,” said Olga Bezverkha, chief business development officer at the firm.

“The system employs interconnected drones, enabling operators to ensure stable and precise interception and neutralisation manoeuvres.”

Bezverkha explained that with the ATA System, upon detection operators receive immediate notifications on their tablet.

This enables efficient customisation of drone quantity and operational modes for precise target acquisition, optimising resources and strategies based on the nature and scale of the threat.

“By integrating autonomous flight capabilities with target identification and response protocols, the ATA system sets a new standard,” she said.

“Consequently, it enhances situational awareness and response capabilities in diverse operational environments. Thousands of military and security personnel have been lost in recent conflicts due to outdated defence technologies. Success rates in current conflict zones remain critically low, ranging between 7-15 per cent – this ATA system is a game changer.”

The company is also displaying its VMBRA system at IDEX, a state-of-the-art visual threat detection AI system designed to redefine security across public safety, critical infrastructure, and commercial surveillance.

“We want to show the Middle East defence sector just what we can do to help save lives,” said Bezverkha.



SITUATIONAL AWARENESS

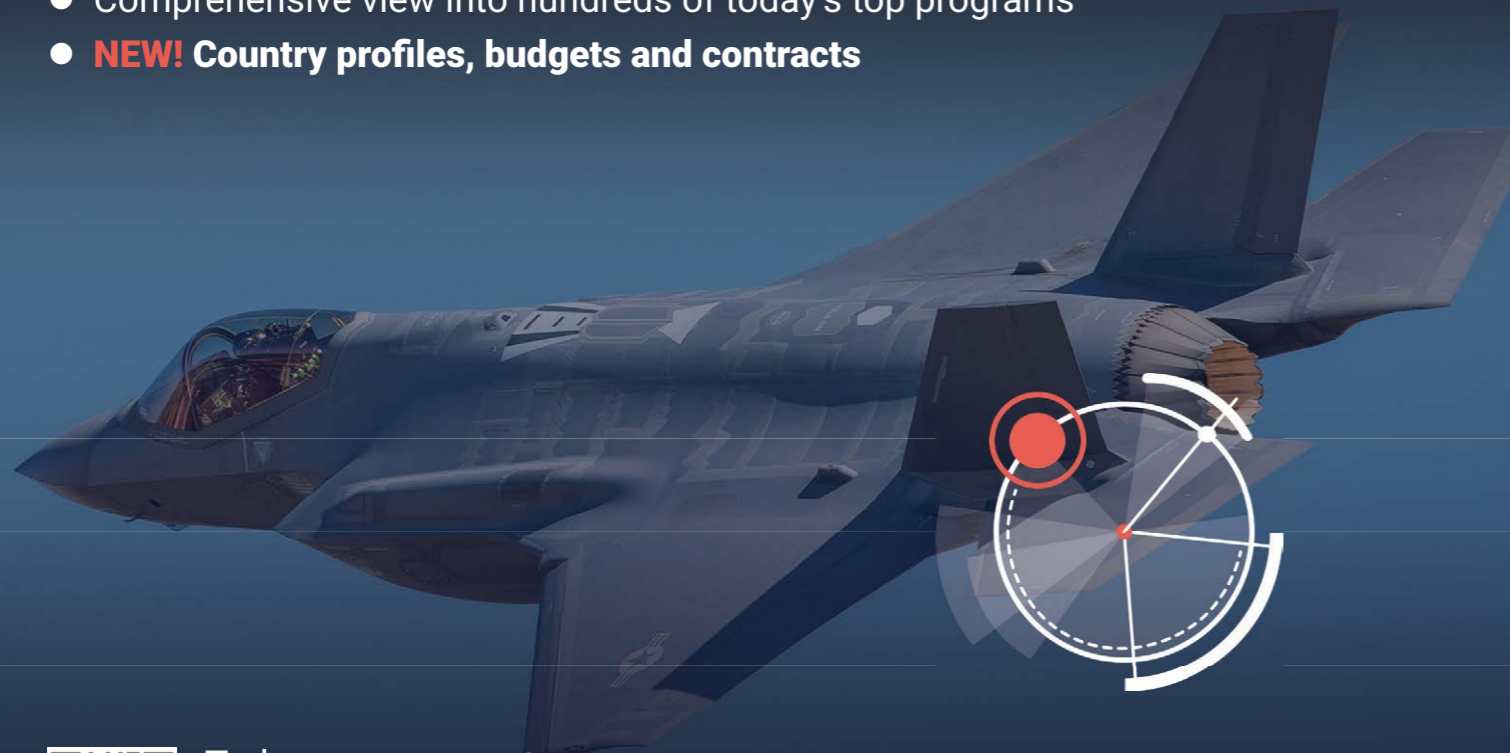
Olga Bezverkha, Orbotix chief business development officer showing off the innovative ATA system

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Türkiye vehicles underline cooperation

Otokar (Stand 07-C09), the major land systems exporter from Türkiye, is firming up its cooperation with the UAE through participation in IDEX 2025.

This is evidenced by Otokar and Al Jasoor, its joint-venture company with Edge Group, displaying the Rabdan 8x8 recovery vehicle here to underscore their joint expertise benefiting the Gulf nations.

As an example of Otokar's long-standing presence in the region, Otokar general manager Aykut Özüner said: "Various types of our armoured vehicles have been operated successfully here in the Gulf region since 2000.

"With the aim of providing immediate and close support to our users, we established the subsidiary Otokar Land Systems in 2016,

a strategic initiative to reinforce our commitment to the Gulf countries."

According to Otokar, it closely analyses the needs and expectations of its users to develop solutions that meet their requirements. In this regard, the company comes up with systems solutions against present and future threats.

"In 2017 joint venture partner Al Jasoor signed the 8x8 tactical wheeled armoured-vehicle contract with the UAE, on which we successfully completed all deliveries," noted Sedef Vehbi, Otokar military cluster head.

"Otokar stands out not only for our technological advancements, but also for our expertise in technology transfer and local production."

Otokar has more than 33,000 military vehicles in 40 countries, operated by 70 end-users. It is committed to grow its position in the region and elsewhere. Vehbi said Otokar remains open to further collaboration with new countries, particularly in the areas of technology transfer, local production, and the development of joint projects.

"IDEX has always been a platform of strategic importance for us," he said. "Therefore, during the event we aim to strengthen our existing relations while exploring new opportunities."

The company is focusing its display on the Cobra II 4x4 tactical armoured vehicle, the Arma 6x6 wheeled armoured vehicle sporting a 25mm Mizrak turret and the Arma II 8x8 wheeled armoured



▲ The Arma 6x6 wheeled armoured vehicle sports a 25mm Mizrak turret

vehicle with 30mm Mizrak turret. Also in the line-up is the Tulpar modular armoured tracked vehicle with 120mm HITFACT Mk II Leonardo turret.

New artillery system from China

Norinco (Stand 11-A19), China's large defence corporation, is showing its latest 155mm artillery system, the SH16A, for the first time abroad at IDEX 2025. The system was unveiled at Air-show China in Zhuhai late last year.

According to an unnamed official here at IDEX, the SH16A from

China North Industries Group Corporation (Norinco) represents a significant technological leap forward. He stressed that the system with an unmanned turret and automated projectile operating capabilities stands at the forefront of modern artillery warfare.

The new VN-23 eight x eight-

wheeled chassis is an enhancement on previous artillery systems that provides improved stability and mobility.

This enables the system to navigate difficult terrain while maintaining operational effectiveness.

Firing trials have shown the new-generation

SH16A to achieve a maximum range of 53 kilometres using rocket-assisted projectiles, thus military forces at stand-off range can engage targets from safer distances.

With a fully-unmanned turret system, and automated loading and firing mechanism, the SH16A boasts remote-control shooting capabilities. In addition to advanced fire control systems, these features would suggest that China is committed to developing modern, technology-driven artillery solutions.

Reports indicate that Norinco has specifically designed the SH16A with export markets in mind. Offering modern artillery solutions at competitive prices with enhanced maintenance and operational efficiency, and adapting to existing military infrastructure would have an impact on the global artillery market.

Norinco is also showing a large and varied range of its other weapon systems in model form. These include the VN22 armoured vehicle, the Sky Dragon 100 surface-to-air launcher and the LD 625/630 anti-aircraft (AA) gun and missile-integrated air defence system.



EXPORT IN MIND
Norinco's new generation SH16A 155mm artillery system

Daily news updates on timesaerospace.aero

AeroVironment unveils Jump 20-X for navies

AeroVironment's Jump 20-X UAV has been officially unveiled at IDEX following a three-year development period.

The Jump 20 platform, initially developed for US special operations and battle-proven against Al Qaeda and ISIS, is the latest iteration of this "veritable cargo truck".

Enabled by \$28 million of company investment, the newly-upgraded, cross-domain (represented by the 'X' designation) platform was principally designed for the maritime environment; selected to deploy on 'Grey Hull' ships.

Following six months of trials and testing, the UAV is now operational, making the most of an optimised collection of new capabilities principally designed for seafaring situations, but applicable to all environments. Featuring a new

diesel engine, the 20-X also incorporates a high-end EO/IR camera offering a passive wide-area search capability which is able to scan over 1,500sq miles of ocean in a matter of hours.

Alongside a 'plug and play' approach to the integration of customer payloads, the ability to carry weapons, including AeroVironment's proprietary Switchblade product, also marks another first, including provision for mortars or a propelled launch system.

Twin booms contain improved batteries while, crucially, the centralised centre of gravity makes the 20-X highly stable – useful for landing in 30kt crosswinds.

Additionally, upgraded radios allow the 20-X to operate in contested environments for the first



PLUG & PLAY
AeroVironment's Mark Russell with the Jump 20-X UAV

time, with multiple layers of protection built in.

Consideration of pre-emptive protection also extends to a physical form, with provision taken to protect the drone's inner workings from the harsh salt spray and operational considerations of a maritime environment.

"The nuances of the 20-X are stacked up to make a difference," explained Mark Russell, business development manager.

"By doing this development,

we've also expanded the customer base for our land-based special ops platform by about 10 times," he continued. With the Middle Eastern region continuing to be a key area of focus, AeroVironment has also recently won a "very competitive" contract for the 20-X with Denmark via the Danish Defence Acquisition and Logistics Organisation (DALO).

Several other upcoming deals in Europe, alongside "a major one in this region," are in the pipeline.

Raytheon in talks on Coyote C-UAS exports

Raytheon and the US Army are in talks with potential export buyers of the Coyote counter-drone system, said Joe DeAntona, the company's vice president for land and air defence system requirements.

"The demand signal is real," with the focus now on working to turn conversations into contract opportunities," he said at IDEX yesterday. The US Army has fielded Coyote under its 'Low, slow, small, unmanned aircraft Integrated Defeat System (LIDS)'.

The RTX unit has been investing to boost output of Coyote interceptors in anticipation of orders.

"We need to get in front of this," DeAntona said.

Russia's war on Ukraine and the conflict in the Middle East has intensified demand for air and missile defence systems.

DeAntona also said that Raytheon is getting close to delivering the first Amraam-ER missiles for use on the National Anti-Surface to Air Missile Systems (NASAMS)

air defence system. Raytheon is a partner on the programme developed originally by Kongsberg.

NASAMS was originally fielded with surface-launched baseline Amraams air-to-air missiles, but has evolved to also include ground-launched AIM-9X missiles. The coming addition of the extended-range Amraam is largely aimed at the Hawk replacement market.



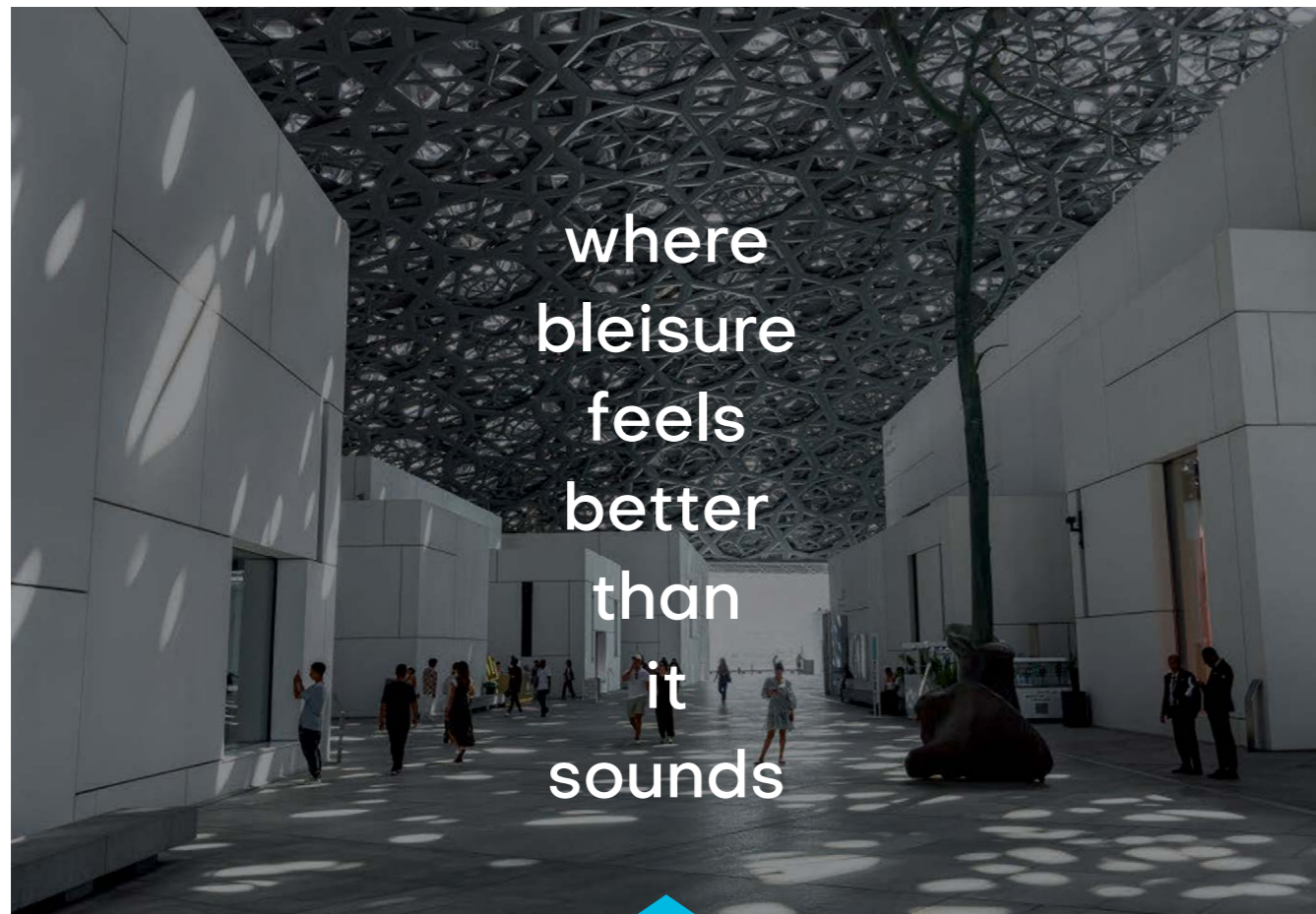
Raytheon VP of land and air defence system requirements Joe DeAntona with the Coyote counter-drone system

MARSS NiDAR covers all bases

MARSS, a provider of AI-enhanced security and surveillance, has successfully reached the handover stage of NiDAR-powered (Nuclear induction detection and ranging) protection systems at two major naval bases in the Middle East, providing end-to-end defence against emerging threats.

These naval bases, among the largest in the region, now benefit from a fully-integrated multi-domain security network, centred around MARSS' NiDAR platform.

This system establishes a comprehensive protective "dome" over both sites, covering air, surface, and underwater threats, ensuring unparalleled situational awareness and rapid response capabilities.



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CAE has built up a stellar reputation for delivering training solutions, and it is showcasing its latest military and defence systems at IDEX, writes Chloe Greenbank

Immersive training solutions take centre stage for CAE

In response to a surge in demand for high-fidelity, immersive training environments CAE, a global leader in training and simulation solutions and a regular participant at IDEX, is showcasing its latest military and defence training solutions at this year's show.

As regional air and naval forces expand and modernise their fleets with advanced fighter jets, vessels, UAVs and a focus on stealth and advanced technologies, CAE's expertise in immersive mission training positions it as a key partner in enhancing the readiness and operational effectiveness of military personnel.

Having operated in the Middle East for more than 20 years, CAE has built up a stellar reputation for delivering training solutions across both the civil and military sectors.

"In line with our changing world, we are adapting to shifting defence needs, positioning ourselves as a mission and training systems integrator," said Thibaut Trancart, CAE's vice president and general manager for defence and security, EMEA.

CAE's next-generation simulation technologies on display this year feature advanced 3D

environments and AI-assisted instruction, designed to enhance defence capabilities for land, air and sea. "Our presence at IDEX this year will have a strong focus on our work with the UAE Navy for whom we are leading the design and development of its Naval Doctrine and Combat Training Centre (NDCTC) and will support training operations at the facility," Trancart said.

The company is also highlighting its solutions for collective/joint mission training, integrating air force and naval operations and will be providing demos of CAE Ridge and CAE+TEMPO on its stand. An immersive visualisation tool, CAE Ridge enables interplay with 3D terrain, objects, entities and their movements for augmented situational awareness, while CAE+TEMPO is a fully-integrated maintenance training and operational support tool also offering 3D virtual reality capabilities for an enhanced immersive experience.

One of the key advantages of CAE's tools, explained Trancart, is their ability to optimise the integrated learning environment (ILE) for a personalised training experience.

He highlighted CAE Rise, a

data-driven training system that leverages big data analytics to enhance training efficiency and effectiveness.

By collecting real-time data from live training sessions, CAE Rise enables instructors to deliver standardised training while objectively assessing pilot competencies. "Not only does it ensure all students receive the same high-quality training, but it also provides a substantial amount of real-time data, allowing us to tailor training more effectively for each customer," Trancart noted.

Realistic graphics

CAE is also at the forefront of delivering realistic graphics via true-to-life visual images for high-fidelity training. The company's latest Prodigy image generator leverages Epic Games' unreal engine gaming technology to deliver high-fidelity graphics and physics-based simulations, enhancing the realism and effectiveness of training programmes.

In line with its "global" strategy, Trancart also emphasised that CAE is integrating its global expertise with regional partnerships to develop defence training solutions tailored to local needs. In the UAE,

the company operates through a joint venture with Reman International Group (RIG) and is engaged in similar partnerships in Saudi Arabia and Qatar.

"It's crucial that we have UAE, Qatari and Saudi nationals involved to better understand local customer expectations," he said. "These partnerships allow us to work closely with regional defence forces to create solutions that are both innovative and culturally relevant, expanding CAE's influence and leveraging our global expertise while ensuring our training solutions remain adaptable and relevant to evolving defence needs."

While CAE is exploring opportunities to expand into new markets, its strategic focus remains on growth in the UAE, Saudi Arabia and Qatar. "We want to reinforce our presence as a trusted partner in defence training and simulation, further integrating our advanced training platforms into the military and defence sectors across these three nations," he said.

IDEX serves as a crucial platform for global defence collaboration concluded Trancart, and CAE's participation underscores its commitment to investing in the region's defence capabilities. ▲

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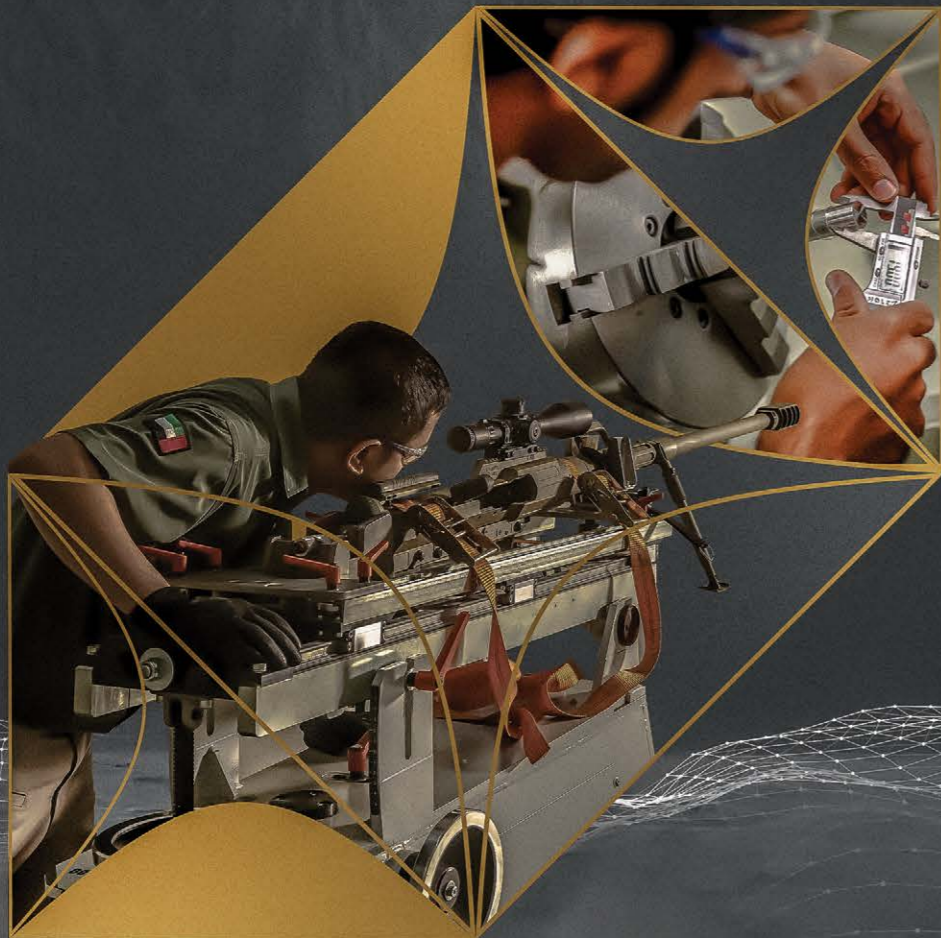


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HIGH-FIDELITY, IMMERSIVE TRAINING ENVIRONMENTS

CAE Prodigy IG provides true-to-life scenario immersion with its eSeries MR Visual Display System and CAE Ridge visualisation tool (right)

Buzzing show sets high watermark

CONTINUED FROM P1

Their impact extends beyond the defence industry, significantly boosting Abu Dhabi's hospitality, tourism, and service sectors.

This year, more than 150,000 visitors attended the collocated events, including senior government officials, defence manufacturers, investors, and global decision-makers. "The influx of international delegates strengthens Abu Dhabi's economy by driving demand for hotels, transportation, dining, and leisure activities. This translates to higher hotel occupancy rates, increased tourism revenue, and substantial growth in the city's conference and hospitality sectors," Al Dhaferi said.

Numbers from the show speak for themselves. This year's record-breaking edition welcomed 1,565 companies from 65 countries, marking a 16% increase in participation, and expanded exhibition space by 10% to 181,501 square metres, ensuring a larger and more immersive experience.

"These are more than just exhibitions; they are catalysts for global defence industry collaboration, innovation, and economic growth," Al Dhaferi said. "ADNEC Group's commitment

extends beyond organising these events – we actively shape the future of defence and security by creating platforms that drive strategic discussions, facilitate partnerships, and promote technological advancements."

Throughout this week, handshakes and ink on paper have seen real proof of collaboration and partnership.

"Multi-billion-dirham contracts have been secured, including a landmark agreement between Qatar's Barzan Holdings and Edge Group, marking the first-ever defence collaboration between the two nations. This milestone highlights IDEX's role in forging new global alliances and advancing regional defence cooperation," Al Dhaferi said.

Like other nations such as Saudi Arabia, Qatar and Bahrain, the UAE measures industry show success by the direct economic investment, technological advancements, and job creation they generate.

"By facilitating high-value contracts, securing long-term commitments from global defence giants, and driving in-country defence manufacturing, IDEX and NAVDEX remain at the heart of Abu Dhabi's economic diversification

and defence excellence," he said.

Looking forward, Al Dhaferi said he is ensuring the twin exhibitions maintain their position as a premier platform for defence and maritime security despite intense international competition.

"They continue to set new benchmarks in innovation, industry leadership, and international engagement," he said. "A key driver of this success is ADNEC Group's strategic partnership with Tawazun Council, reinforcing the UAE's position as a leading global hub for defence investments and advanced technology. Through Tawazun's expertise in defence procurement and in-country value (ICV) initiatives, IDEX and NAVDEX consistently attract high-profile deals and investments."

ADNEC Group has also enhanced its global outreach, showcasing IDEX and NAVDEX at leading international defence exhibitions, ensuring Abu Dhabi remains a focal point for cutting-edge defence technology and strategic partnerships.

Al Dhaferi said innovation continued to help the show grow.

"This year saw the introduction of Hall 14,



▲ From left: Humaid Al Dhaferi, MD and group CEO of ADNEC accompanies HH Sheikh Abdullah bin Zayed Al Nahyan, UAE Deputy Prime Minister and Minister of Foreign Affairs and Major General Pilot Ibrahim Nasser Mohammed Al Alawi, Commander of the Air Force and Air Defence



Numbers from the show speak for themselves. This year's record-breaking edition welcomed 1,565 companies from 65 countries, marking a 16% increase in participation, and expanded exhibition space by 10% to 181,501 square metres"

featuring the new CBRNE Hub, brought together 341 companies focused on Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) threats," he said. "Additionally, our partnership with TRENDS Research & Advisory as the official knowledge partner has elevated intellectual discussions, enriching the event with high-level insights and thought leadership."

ADNEC also supported start-ups. "With over 156 start-ups from around the world – comprising 10% of total exhibitors – IDEX 2025 has reinforced its commitment to fostering innovation in AI, robotics, cybersecurity, and aerospace technologies. These advancements ensure that IDEX and NAVDEX remain at the cutting edge of modern security challenges and defence transformation."

▲ IDEX-NAVDEX 2027 will take place at the ADNEC site on 25-29 January

Edge chairman sees export ambition in sight

Edge Group chairman Faisal Al Bannai says the company's defence export ambitions could reach a major milestone this year with more than half of bookings coming from abroad.

When the company was set up little more than five years ago, only about two per cent of its business was abroad. That grew to 35 per cent last year and, Al Bannai said: "if we do close some of the deals we're expecting to close this year, it could go to 50 per cent or beyond 50 per cent of our orders."

The customer base has been broad, he said, with sales coming from the Middle East, Asia, Europe and Latin America. Only the U.S. remains a blank for deals.

The UAE has grown Edge in part through a series of acquisitions. Al Bannai said deals will remain part of the company's strategy going forward, even as Edge focuses on building up its in-house capabilities and grows international partnerships.

Edge, which used IDEX to announce several partnerships, will increasingly focus on arrangements leading to co-development and creation of new intellectual property that can be sold abroad.

Al Bannai also says recent conflicts are informing the company's strategy, particularly the heavy use of a large number of uncrewed systems in the war in Ukraine. "In the next two years, you will see us further growing in autonomous platforms. You'll see us further trying to disrupt with cost effective solutions and heavy leverage of AI," he said.

Edge also is trying to get in early in the use of quantum technology in defence applications. The early focus is on quantum computing, with efforts in quantum sensing also in the pipeline, says Al Bannai, who also serves as the secretary general of the UAE's Advanced Technology Research Council. Quantum computing efforts will come later.



His Highness Sheikh Mohammed bin Rashid Al Maktoum, Ruler of Dubai (right), speaks with Edge Group chairman Faisal Al Banna



Milkor to develop surveillance vessel

Abu Dhabi shipbuilder Milkor is developing a new maritime surveillance vessel. The 30-metre Interceptor will have a flightdeck atop the superstructure able to operate VTOL UAVs with a wingspan of up to 3.5 metres. The vessel will be able to carry up to three UAVs, with a lift to move them to and from the flightdeck. Propulsion options include diesels and water jets, giving a maximum speed of up to 50kts; range at 35kts cruising speed would be 1,000nm. "We're still in the design phase and are looking to refine it with end-users," said Milkor UAE's head of marine projects, James Cottrell (pictured). Anti-piracy and fishery protection duties are among potential tasks.

Saber rattler

A Saber cruise missile model is being shown off under the Mirage 2000 panoramic hanging from the ceiling of the Edge stand. At IDEX 23 the weapon, carrying a 350kg payload, was still in the concept phase, but now two years on it is now under development and according to Edge will have a 290km range.

Undoubtedly, it is a replacement for the MBDA Black Shaheen (known as Storm Shadow in UK and Scalp EG in France) integrated onto the Mirage 2000 in the early 2000s and Saber is expected to be operational with the Dassault Rafale when it enters service later in the decade.

Testing of the stand-off weapon should have commenced by the time IDEX 27 arrives in January 2027.



Hanwha eyes L-SAM exports

Hanwha Systems is starting to push its L-SAM upper-tier air and missile defence system into the export market after the South Korean government officially declared the programme's development completed, said Giyeop Kim, a business development manager at the company. Hanwha is hoping to replicate some of the export success it has had with the M-SAM medium altitude system,

which it has sold to Saudi Arabia and the UAE. The export push is kicking off as the company scales-up production of the vehicle-mounted system and interceptors as it looks to deliver the first batteries to the South Korean air force in 2027 and pursued development of a more capable interceptor, adds Sukdea Yu, senior manager for air defense systems at the company.



Aksum's glass sealing

Dubai-based Aksum, which has customers in the UAE, Saudi Arabia and Egypt in the Middle East, produces advanced, customised bulletproof and laminated glass and is showcasing an example here at the show. "Our certified ballistic glass solutions are used for the global security industry, financial, private and defence sectors – such as armed vehicles, the marine industry, and construction markets – including embassies," said Michel Herera, production manager (pictured).



SHOW TIME

On land, sea and sky

Show Business reporters have scoured the halls at IDEX for innovative products and services



Metravib's gunning for sales

"If noise is the first warning sign of danger, then acoustic detection can help protect people," said Laurent Galindo, international sales director of Metravib Defence.

The French company provides a range of products and services dedicated to noise detection of any potential threats for the defence and homeland security

sectors. One of its products on display at IDEX is its acoustic gunshot detector, Pearl.

The Pearl can be mounted on any rifle or other platform through a Picatinny rail and Metravib is working with the UAE armed forces on the product.

Laurent Galindo, international sales director, is pictured with the Pearl acoustic gunshot detector.



Increased appetite for stealthy test target drones

Beijing-based GFA Aviation Technology is looking to augment the domestic sales of its family of target drones, used to test and simulate the capabilities of air defence systems. Able to integrate on "many types" of aircraft, the drones are able to simulate different payloads, missile characteristics and kinetic effects, with GFA keen to increase its exposure to the international market. Capable of speeds of up to Mach 0.9, the FH100 high manoeuvre drone (right) is designed to replicate the flight dynamics of advanced fighters, cruise missiles and anti-ship missiles. Pictured above is GFA's Xiao Wang on the company's stand.

Off-road mobility

As a long-time supplier of military trucks to the Middle East, Mercedes-Benz Defence Trucks (Stand 08-D48) is displaying its highly-mobile, off-road Zetros 3351 AS 6x6 truck with a special goose-neck trailer. The six-wheeled trailer with a 70-ton capacity is being shown for the first time at IDEX 2025. The big rig combination is ideal for military users to transport heavy equipment in difficult terrain, even in adverse climatic and operational conditions. It is suitable to carry wheeled or tracked vehicles at speeds of 80 km/h when fully loaded. Mercedes-Benz Defence Trucks are renowned for reliability, durability and ruggedness.



BlackSky, the supporting sponsor for the IDEX talks, is demonstrating how its real-time, space-based intelligence system is revolutionising dynamic monitoring and analysis of Earth for vital defence and intelligence missions, writes Steve Nichols

BLACKSKY'S EYE-IN-THE-SKY

Revolutionising dynamic monitoring

The company provides on-demand, high-frequency imagery, analytics, and high-frequency monitoring of the most critical and strategic locations, economic assets, and events in the world.

BlackSky's space-based intelligence combines the collection of high-resolution imagery captured from Earth observation satellites with automated analysis from advanced artificial intelligence to give critical insights such as patterns, trends and anomalies over areas of interest.

Nations have been making significant investment in intelligence, surveillance and reconnaissance (ISR) to better manage increasing conflict and global instability, but traditional models are unable to keep pace. Automation via AI – essential for processing vast amounts of geospatial data effectively – is transforming static mapping into dynamic monitoring, moving geospatial intelligence into space-based intelligence for strategic ISR applications.

Operationally-relevant intelligence must arrive while a mission is ongoing. "By flying satellites in inclined orbits versus traditional polar orbits and imaging strategic areas over mapping the entire globe, BlackSky delivers actionable intelligence at mission speed and scale," said Brian E O'Toole, BlackSky CEO.

Their high-rate, dawn-to-dusk collection showcases activity often no one else sees.

The company's high-resolution small satellite constellation has the highest revisit rate in the

world, with a peak rate of 15 hourly visits per day over certain locations. Delivery is fast after collection – customers receive imagery and analytics in under 90 minutes, so they can see, understand and anticipate changes for a decisive strategic advantage.

BlackSky says it is trusted by some of the most demanding U.S. and international government agencies, commercial businesses, and organisations around the world. "With disruptive speed and economics, BlackSky is delivering unparalleled value to global customers with automated real-time high-frequency, low-latency imagery and analytics products," said O'Toole.

"Our software-first approach enables immediate and scalable access to commercially available AI-assisted tasking-to-delivery systems that ensure mission-critical intelligence arrives in-hand to operators and analysts in a matter of minutes."

BlackSky says a single user can select a location in the world, add automated aircraft and vessel identification monitoring, and task

BlackSky's proprietary satellite constellation in just minutes, with no human interaction required.

Ninety minutes later, they have their satellite imagery with AI automatically detecting new aircraft, vessels or buildings since the satellite's last pass.

Subscription-based model

BlackSky's subscription-based model offers immediate access to space-based intelligence capabilities. Customers can access BlackSky's capabilities from any web browser – directly through the BlackSky Spectra tasking and analytics data-fusion platform or via an application programming interface (API) – to incorporate into their current workflows at the strategic and tactical level.

Particularly for nations with a fledgling space programme, this software-first approach adoption approach gives ministries of defence and intelligence organisations the ability to turn on real-time, low-latency monitoring capabilities in very little time and with very little upfront investment.

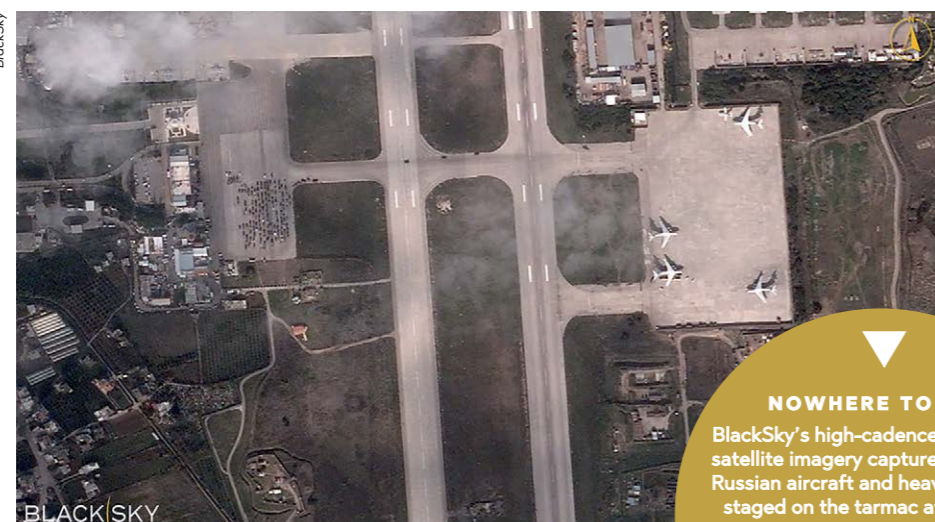
As BlackSky continues to

reshape industry expectations for what's possible with space-based intelligence, the company is set for another innovative leap forward as it prepares to introduce its new Gen-3 constellation, combining very high-resolution imagery with high-frequency, dynamic monitoring.

BlackSky recently won a more than \$100 million contract from a long-term strategic partner in the international defence sector. The new, seven-year deal secures annual capacity minimums for reliable high-resolution, low-latency current Gen-2 and upcoming Gen-3 imagery and AI-enabled analytics services through to 2032.

"When BlackSky brings advanced Gen-3 capabilities to market, we will close the traditional gap between spatial and temporal resolution," O'Toole said. "We expect that many of our current international assured customers will be among the first to seamlessly incorporate very high-resolution 35cm imagery and sub-hourly revisit and delivery timelines into their workflows as those capabilities become available."

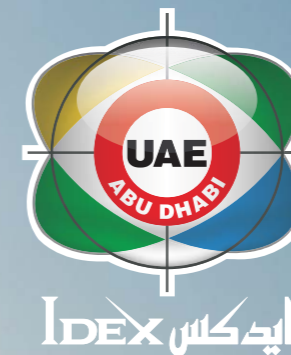
The Gen-3 constellation will further enable BlackSky's space-based intelligence applications for tactical ISR missions and strategic intelligence operations where speed to insight is the overwhelming factor in mission success.



NOWHERE TO HIDE

BlackSky's high-cadence, low-latency satellite imagery captures a variety of Russian aircraft and heavy equipment staged on the tarmac at Khmeimim air base in Syria, December 15 2024

▲ Black Sky can be found in Hall 3-A43.



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