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## US—WDS presence will make relationships stronger FACING COMMON ENEMIES TOGETHER

**F**lying displays and an active presence at a show like WDS is a key part of opening partnerships and developing trust between allied nations, a major player at the event said.

Col Andy Ladd, A5 director for Strategy and Theater Security Cooperation, is acting as 'air boss' for the US Air Force participation at WDS, responsible for the flight demonstrations and static displays.

A former Boeing F-15E Strike Eagle pilot, Ladd said the USAF's participation is "not just important to the United States Air Force, but to all of our partners across the entire region." He explained that coming together in a forum such as WDS, with senior lead-

ers from allied nations, makes relationships stronger and will help allies "to come together in times of strife and turmoil to defeat common enemies and threats in the region".

"Building trust really is the backbone of being able to work together as a combined coalition from multiple countries. If you don't trust a partner, you're not going to work together very effectively, are you?"

"And here, we're building on the strong trust that's already established to continue to build those

relationships with our partners. Nothing is more important, especially given what is happening in the region. In my 25 years of military service, I don't think I've ever seen this level of tension in the Middle East."

"As tensions rise, and as things get more difficult, that's where we will have to fall

back on those relationships, and share that burden, and that's where trust is so important. But there's a lot of firepower here to prevent that instability from creeping into the Middle East."

There are some surprising absences among the US participants – there is no KC-46 Pegasus air refuelling tanker aircraft, which Boeing hinted would be 'featured' at the show. There is also no example of a USAF fifth-generation fighter. Ladd said consideration had been given to sending fifth-generation assets (he did not specify whether that meant the Lockheed Martin F-22A Raptor or the F-35A Lightning II) but said that timing had made this impossible, with multiple important commitments facing these forces. ▲

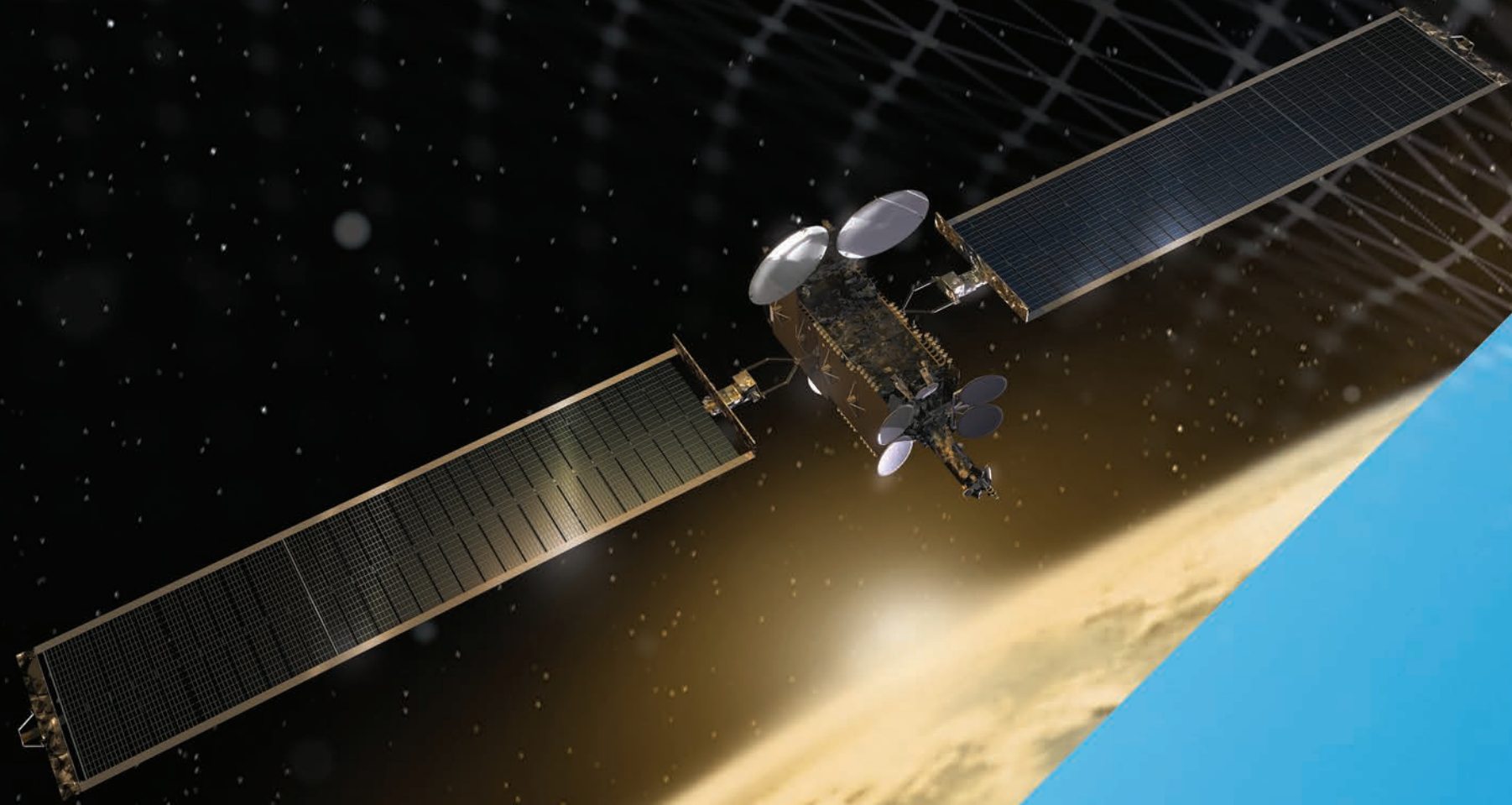


### BUILDING TRUST

Col Andy 'Cuffs' Ladd is a firm believer in the vital importance of building partnerships with regional allies



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## Singapore-Saudi joint venture hits back at drones

In an age when drone warfare continually shapes the landscape of global security, Singapore-based TRD Systems, working with Rakaa Holding, which produces security and military equipment, unveiled its latest next-generation anti-drone capability which is being produced in the Kingdom.

TRD provides anti-drone technology for military, law enforcement and airports across 30 countries to safeguard their critical assets.

“TRD’s approach to creating superior anti-drone solutions is rooted in rigorous testing and an unwavering commitment to safety and excellence,” said Sam Ong, vice-chairman of TRD.

“Invariably, it makes significant impact in the Middle East by defending against rising drone threats disrupting Red Sea trade and other strategic infrastructure. We recognise the vast requirements in the Arab world.”

Ong anticipates a market potential exceeding \$100 million for man-portable systems alone. This commitment has been cemented by the establishment of a joint venture company in Saudi Arabia, TRD Middle East Industry, whose



Salman Fahad Al Malik, chairman of Rakaa and TRD, Mr S Premjith the Ambassador of Singapore in Riyadh, and Sam Ong, vice-chairman of TRD, showcase the latest drone gun

inaugural production pilot programme started in January.

“This joint venture alongside the set-up of a local company in the Kingdom embodies TRD’s

dedication to technology transfer, production enhancement and collaborative solution development, all in stride with Saudi Arabia’s Vision 2030,” said Ong.

## Latest C-27J variant set for MENA launch

Leonardo is marketing two new variants of its C-27J tactical transport, one an armed intelligence, surveillance and reconnaissance

(ISR) aircraft derived from the Praetorian variant now in service in Italy, and the other a maritime patrol aircraft (MPA) and anti-

submarine warfare (ASW) platform.

The latter is being actively promoted in Saudi Arabia, where there is, in the words of Dario Marfé of Leonardo Velivoli, “a clear requirement from the navy standpoint”.

Leonardo has two potential launch customers for the aircraft, one in Europe, the other in the MENA region.

The new C-27NG MPA is based on the C-27 New Generation configuration, with new avionics and winglets, and is derived from the ISR variant. It shares the same core

configuration as the ISR version, with the same Leonardo Seaspray 7500 radar, and the same modular operator workstations (up to five).

The aircraft is fitted with a modern acoustics system, sonobuoy launchers, stowage for 84 sonobuoys, and six underwing hardpoints for Marte-ER anti-ship missiles or MU-30 torpedoes. It also has a magnetic anomaly detector, a useful ‘confirmation sensor’ during ASW engagements. Mission systems are ‘roll on/roll off’, allowing the aircraft to perform a transport role if required.



Dario Marfé with a model of MPA variant of the C-27J



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## US military out in force at WDS

The US military has eight aircraft on show in the static display, displaying a diverse range of capabilities.

They comprise two US Army Sikorsky UH-60L Blackhawk helicopters, and from the USAF a Bombardier Global Express E-11A battlefield airborne communications node (BACN) data relay aircraft, a Lockheed Martin C-130J and HC-130J Hercules transport aircraft and three USAF fighters.

The latter group includes a Boeing F-15E Strike Eagle from the 48th Fighter Wing's 494 Fighter Squadron based at RAF Lakenheath; a Lockheed Martin F-16C Fighting Falcon of the New Jersey ANG's 119th Expeditionary Fighter Squadron, normally housed at Atlantic City International Airport; and a Fairchild A-10A Thunderbolt II of the 355th Wing's 354th Fighter Squadron based at Davis Monthan AFB, Arizona.

All are currently deployed in the region providing offensive support



### PARKING UP

The 119th Expeditionary Fighter Squadron/New Jersey ANG F-16C taxis to its parking spot. The unit has been deployed to the Middle East since late December

against pro-Iranian militias that, according to one source, are "trying to break the resolve and solidarity of peaceful Middle East nations."

## Ajax turns over a new leaf

After a difficult and troubled development, the General Dynamics UK Ajax armoured reconnaissance vehicle is back on track.

Early trials were halted from November 2020 to March 2021 due to excessive noise and vibration, leaving crews suffering from nausea, swollen joints and tinnitus.

But now the vehicle is in service, replacing the ageing Scimitar, operators are enthusiastic – and one example is at the show.

One officer from the British Army's Blues and Royals, who withheld his name on security grounds, said: "The vehicle we use in the regiment today is exceptional, and is absolutely everything that we could hope for.



A British army armed reconnaissance vehicle is on show at WDS

It is an absolute game-changer in terms of lethality, protection and manoeuvrability."

Regarding the procurement saga and resulting negativity surrounding the programme, he said: "Everything

that I've read in the press isn't true in terms of what we've got. Whether it was never true, or whether the problems have been fixed, I don't know.

"Probably a bit of both!"

### ▲ NEWS IN BRIEF

#### RAF hits milestone with new Protector

The Royal Air Force's newest aircraft made its first flight in the UK on 23 November.

The General Atomics Protector RG1, a remotely piloted aircraft system, took to the skies from RAF Waddington, marking another important milestone in the delivery of the surveillance, intelligence and precision strike aircraft to the front line.

The first of 16 Protectors arrived at RAF Waddington, Lincolnshire, last September and is undergoing a series of rigorous trials and tests before entering the RAF fleet.

Capable of operating across the world with a minimal deployed footprint and remotely piloted from RAF Waddington, it can operate at heights up to 40,000ft with an endurance of more than 30 hours.

The aircraft stood up with 31 (Bomber) Squadron 'Goldstars' on 11 October.



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## BAE Systems unveils new concept aircraft

Like other advanced ‘sixth-generation’ fighters, the Anglo-Japanese-Italian global combat air programme (GCAP) is the core manned platform that sits at the heart of a ‘system of systems’ that also includes unmanned effectors and adjuncts.

One of these, the latest autonomous collaborative platform concept from BAE Systems, is being quietly unveiled at WDS.

A highly stealthy uncrewed combat aerial vehicle (UCAV), it is intended to incorporate goal-based autonomy, allowing it to operate independently or synchronised with other assets.

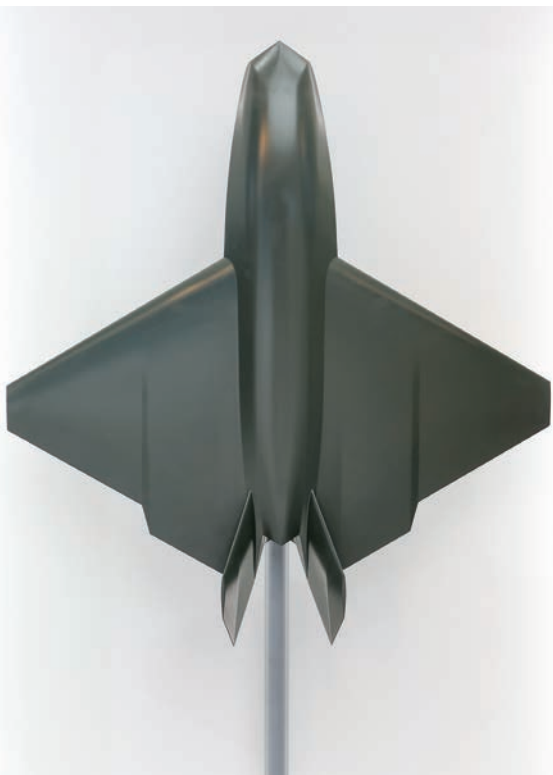
The twin-finned aircraft has a trapezoidal wing with slight anhedral, a chisel nose and an underslung engine intake, and is designed to take off and land conventionally. The aircraft is intended to be attritable rather than expendable, and has two payload bays, allowing it to

fulfil a range of roles, including precision kinetic strikes against air or ground targets, electronic attack, and intelligence, surveillance and reconnaissance (ISR) using electro-optical/infrared (EO/IR) sensors.

There will be land-based and maritime variants.

The UK seems to have moved away from very large, highly capable, traditional ‘loyal wingmen’, which may be viewed as being too big and too expensive to risk losing, and perhaps not able to be procured, deployed or operated in sufficient numbers.

BAE Systems is providing a first glimpse of the company’s new autonomous collaborative platform concept, a highly stealthy UCAV designed to operate with the new GCAP manned fighter



Billypx

## New systems boost pilot situational awareness

Lockheed Martin’s innovative Gen 3 TADS/PNVS has been a game-changer for Apache pilots since it was first fielded in 2005, providing them with life-saving situational awareness.

More than 1,240 of the target acquisition designation sight/pilot night vision sensor systems have been delivered to the US army and 19 international customers, and the Apache fire control team continues to look for opportunities to evolve the system. Recent additions are a Gen 3 day sensor assembly with laser spot tracker components and a new Gen 2 turret (G2T) has replaced the legacy TADS system turret assembly.

Lockheed Martin recently used a new AH-64E V6 variant equipped with the Gen 3 TADS/PNVS to successfully fire eight Spike non-line-of-sight (NLOS) missiles during five days of testing at Yuma proving ground in Arizona.



Technicians at work on the TADS/PNVS turret on a Boeing AH-64E Apache

Lockheed Martin

### ▲ NEWS IN BRIEF

#### Leonardo scores with AW149

The Leonardo AW149 helicopter is being shown at WDS in model form, while the real aircraft is enjoying significant success.

Dismissed by some as a ‘green-painted oil and gas helicopter’ because of its similarity to the AW139 and AW189, the AW149 is a military design from the ground up, with a crashworthy structure, formidable run dry capabilities, and significant ballistic tolerance.

Faster than the rival Black Hawk with a bigger cabin, the more modern AW149 has scored recent sales successes in Poland which took 32 aircraft, and North Macedonia with four aircraft, together with four AW169s.

The aircraft is also viewed by many as being the leading contender in the UK’s New Medium Helicopter requirement, thanks in part to its importance to the Leonardo Helicopters facility in Yeovil, which supports thousands of British jobs.



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The Akinci on display is the seventh prototype, PT-7, showing off Turkish-made munitions. The Saudi order sees more than 70% of the drone being built in-country

## Loaded Akinci shows off potential

Six months after the announcement, in July last year, that Saudi Arabia was set to acquire the Baykar Bayraktar Akinci unmanned combat aerial vehicle (UCAV), one of the prototypes is on display at WDS.

Haluk Bayraktar, the Baykar chief executive, described the deal as “the biggest defence and aviation export contract in the history of the Republic of Turkey”. It followed Saudi Arabian Military Industries (SAMI) notice in August, after the signing of several memorandums of understanding (MOUs) with Turkish defence companies, that up to 70% of the Bayraktar Akinci built for the Saudi military would be produced in-country. One source at the show said the first Akinci should be delivered to the air force in 2026.

Three MOUs exist between SAMI and Baykar; another between Saudi Arabia’s National Company for Mechanical Systems (NCMS) and Ankara-headquartered Aselsan, which makes the UAV’s electro-optical system; and a third between NCMS and guided weapons manufacturer Roketsan, also based in Ankara.

After the aircraft’s first flight on 6 December 2019, the first three serial production examples were subsequently delivered to the Turkish armed forces in August 2021. The 20m wingspan UCAV on show is being displayed with several Roketsan 7-35kg MAM-C, 10-22 kg MAM-L and 70-95kg MAM-T smart munitions under the port wing, two twin-racks each with two Aselsan Tolun munitions on the centre pylon, and under the starboard wing is a MAM-C, MAM-L, alongside a 250kg Roketsan 250kg Tebir and Aselsan LGK 250 munitions.

Several other missiles are currently being integrated onto Akinci too, including the 230-600kg Som cruise missile and 70-250kg Cakir cruise missile.

The first Turkish indigenous air defence missiles, developed by Tubitak-Sage, will eventually be integrated, as will the within-visual-range Bozdogan (Merlin) and a beyond-visual-range Gokdogan (Peregrine). A new Aselsan active electronically scanned array (AESA) radar should follow soon, making the Akinci a formidable platform.

## Al Marar committed to keeping the Edge

Edge Group, the fast-growing Abu Dhabi-based advanced technology defence conglomerate, says it is on track to gain 40% of its orders from customers outside the UAE within three years.

Today, the UAE military represents some 90% of Edge’s business, with just 10% coming from international contracts. However, this is changing rapidly and achieving a 60/40 UAE/international business backlog split would represent a major transformation for state-owned Edge.

“If you take the trajectory we had – we made \$60 million in orders in 2019, now [in 2023] it is \$2 billion – this is the target we strive for and it’s a healthy and doable one,” said Hamad Al Marar, Edge Group’s new managing director and chief executive.

In 2023, Edge Group as a company achieved total revenue of \$5 billion, he said. Alongside this it booked orders worth \$5 billion, giving it a total order backlog totalling \$10.8 billion. Edge appointed Al Marar, who has spent four years in the group’s senior management team, latterly as president of its Missile and Weapons cluster, to the top job on 1 February. In an interview with Show Business, Al Marar stressed that Edge’s strategy to develop and manufacture defence

products and systems for the UAE armed forces remains unchanged, as does its aim to do this locally.

To accelerate and aid this drive, the group has been extremely active in acquiring 12 overseas companies in the past two years, with others in the pipeline. Edge is able to make a swift decision on a deal if it makes sense, said Al Marar. While more businesses will join the Edge family, for Al Marar a major priority for 2024 is product delivery. “It is important to understand that we are slowly recovering from the Covid dislocations of the supply chain,” he said.

Supply chain issues have impacted some Edge programmes and Al Marar wants improvement this year. “We are not immune to the issues,” he noted.

Asked about the biggest strategic challenge Edge faces, Al Marar pointed without hesitation to talent attraction and retention. The company has a unique position that combines its diverse workforce of Emiratis alongside colleagues arriving from Europe, Asia and elsewhere to make an attractive employment proposition, said Al Marar.

“We are one of the very few companies with so many nationalities working on the same programmes which has created an intellectual migration component for Edge.”



Hamad Al Marar is Edge Group’s new managing director and chief executive

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## Collins system comes to aid of military pilots

Rich Kerslake demonstrates the HGS/EVS while navigating landing conditions on a C-130

Pilots landing in hazardous conditions can now benefit from a new head-up guidance system/enhanced vision system (HGS/EVS) being introduced to the Middle East region at WDS by Collins Aerospace, an RTX business.

“The HGS/EVS provides unprecedented situational and terrain awareness in even the most challenging mission conditions, including low-visibility adverse weather and night-time operations,” said Rich Kerslake, business development director, Military Avionics and Helicopters.

The product, which offers triple the vision power for pilots, was first offered as an option on commercial and business aircraft, including Airbus models. The military has

now shown keen interest after seeing its potential for challenging flights and landings over difficult terrain, obstacles, airports and runways.

“Tactical airlift and special operations missions are always no-fail,” said Kerslake.

“Our HGS-6000 series provides a tactical advantage for covert and mission-critical operations while improving safety. Pilots are able to keep their eyes focused out in front of the aircraft as they view the flight path, acceleration, attitude, airspeed, altitude, visual glideslope and other symbology on the LED display.

“Head-up displays (HUDs) are available as a dual installation for full capabilities to both pilot and co-pilot. For C-130 operators, our



HGS-6500 provides a seamless replacement for analog HUDs without the need for special modifications. Its real-time,

eyes-forward capabilities increase pilot awareness, enabling precise tactical approaches and low visibility operations.”

## ASIS holds winning hand in military boats

American boat-builder ASIS is hoping to attract the Saudi Arabian coast guard and navy with its state-of-the-art Aces of the Sea boats.

The company, which has a facility in Dubai, designs and manufactures advanced rigid-hull inflatable boats and fully inflatables of various sizes for missions

including law enforcement, coast guard, the military, navy and interception.

The boats are manufactured using both fiberglass and aluminium.

“ASIS differs from most boat-builders as the boat is meticulously crafted and tailored to meet the precise requirements of our

clients,” said Mario Hoyek, business development manager.

“Our military rigid-hulled inflatable boats are specifically designed to meet the demanding requirements of military operations. They are built to take on any mission, in any environment, and are able to withstand harsh conditions and

rough seas.” BAE Systems, an ASIS client, uses its vessels to train navy cadets in the Kingdom.

Hoyek added: “We are a negative carbon footprint company providing 100% of the factory’s energy needs, with some to spare.”



ASIS manufactured this Aces boat specially for WDS and is on sale after the show

### ▲ NEWS IN BRIEF



### Helicopters galore

The host of helicopters on display at WDS this year represents all sectors of the Saudi’s military and para-public services. The Royal Saudi Navy is represented by an anti-submarine warfare configured Sikorsky MH-60R, with the Royal Land Forces showing off a Boeing Helicopters CH-47F Chinook, UH-60L Black Hawk and AH-64E Apache. The National Guard has a UH-60M Black Hawk, a relatively new AH-6i Little Bird light attack helicopter and an AH-64E Apache (with Longbow radar) and UH-60M Black Hawk. Not to be outdone, the RSAF has flown in two AS532 Cougars (pictured above) and the Presidency of State Security (PSS) is showing off one of its Airbus Helicopters H145T-2s.



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## Saudi university swarms all over WDS

"We want to be part of the supply chain," said Thamer Almoneef, director of Research and Development at Prince Sattam bin Abdulaziz University.

The university, which is based in Al-Kharj, south of Riyadh, is making its debut at WDS where its growing R&D group is showcasing 46 products ranging from land-mine detection and underwater drones to surveillance ball cameras, jamming antennas and remotely operated mini-tanks.

Almoneef heads up a group of 25 engineers and 30 students at the university's R&D unit. In the past two years it has focused heavily on developing products and systems that can play a significant role in localising military-related products and developing an ecosystem in the Kingdom capable of delivering local engineering skills, he said.

"We are proudly demonstrating our products and our capabilities," said Almoneef. "I want our government to see our proficiency and to attract local and overseas companies interested in localising the development of the sub-systems and systems that visitors



Thamer Almoneef, director of Research and Development at Prince Sattam bin Abdulaziz University, surrounded by the 46 products and systems it has on show

can see on our stand.

"If companies need an R&D partner here in Saudi Arabia then we are the perfect fit."

In January, the university created a company called Swarm, with Almoneef as chief technology officer, to help bring its products

to market. He said: "Swarm is the bridge we need as a university to the business world to enable us to commercialise our work."

## Uncertain future for Korea Air Force's MC-X transport jet

With the Embraer C-390 Millennium now selected to fulfil the Republic of Korea Air Force (ROKAF) large transport aircraft (LTA) II requirement, the future of Korea Aerospace Industries'

multicargo-X (MC-X) programme looks doomed. The announcement by the Korean defence acquisition programme administration (DAPA) on 4 December now means the project, launched in

September 2022, will probably fail.

Any hopes for survival appear to depend on finding a major investor such as Saudi Arabia or the UAE to take on a programme that could meet their future requirements through a transfer of technology. Both Middle East nations are looking to work more closely with Korean aerospace, and any proposition might have legs if it came at the right price.

A visit to the KAI stand at WDS found the company was still displaying a model of the large twin turbofan engine transport aircraft that was set to make its first flight in 2030/31. A source at the stand said the programme was on hold, while discussions continued with the ROKAF.

One consolation for KAI its selection as the offset company working with Embraer for the C-390.

At the Seoul ADEX 2023 exhibition, KAI spoke of a development roadmap that would not only cover tactical transport but a podded aerial refuelling probe and drogue system, underwing aerial firefighting and a mothership for manned-unmanned teaming (MUM-T), that could see it launch unmanned aerial vehicles (UAVs).

The MC-X will also be capable of supporting air launch to orbit (ALTO) missions for microsatellites. Now all these ambitious plans look set to be scrapped unless a buyer of the programme could be found.



The future is uncertain for KAI's MC-X transport jet



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France's Naval Group is delivering new ships and helping support older ones in several of the region's navies and is helping Saudi Arabia in its efforts to bring more support work in-country, writes Alan Dron

# Belh@rra allows fully outfitted modules to be built 'at home'

Naval Group will be showcasing its wide range of equipment and services at WDS, but among these, two of the most important products will be its Gowind and Belh@rra-class frigates – especially the Gowind, which has been ordered by several navies in the region.

The UAE received its first of two Gowinds, Bani Yas, in October last year. The second, Al Emarat, was launched in May 2022 and is starting sea trials.

Egypt already has four Gowinds in service, with three constructed in-country at Alexandria Shipyard, a contract that the yard says allowed it to develop from a builder of civilian vessels to one that can also handle major warships.

Naval Group will also be focusing on its Belh@rra-class defence and intervention frigates (FDI) three of which have been ordered by Greece for the Hellenic navy and are scheduled to be delivered in 2025-26, just three years after the contract was signed.

The Belh@rra class/FDI features high-level capabilities in the anti-ship, anti-air and anti-submarine domains, says Naval Group.

### Data centres

The Belh@rra class/FDI is equipped with an integrated mast that brings together sensors, enabling 360° surveillance. Naval Group says that the frigate is also the first on the market to be designed from the outset for protection against cyber threats. With this in mind, the FDI is equipped with two data centres hosting almost all of the ship's applications.

Greece has chosen a balanced armament fit for the 4,500-ton

vessels, including 32 Aster anti-air missiles and eight Exocet MM40 B3C anti-ship missiles, both produced by MBDA. It also has a RAM missile launcher for close-in anti-air work, four torpedo tubes for MU 90 torpedoes, supplied by Naval Group, and a 76mm gun.

The vessels will be home to a 10-ton class helicopter, together with an unmanned aerial vehicle and will also be capable of dealing with asymmetric threats, hostile supersonic missiles or cyber-attack.

The increasingly delicate geo-

political scene in several regions of the world means that many countries are planning to increase

**The vessels will be home to a 10-ton class helicopter, together with an unmanned aerial vehicle and will also be capable of dealing with asymmetric threats, hostile supersonic missiles or cyber-attack**

their defence budgets significantly in the next few years. "We know that military budgets and military activity are very dynamic," said Patrice Pyra, Naval Group's country director for Saudi Arabia. "We are receiving a growing number of enquiries because of that."

### Growing capabilities

While not commenting on individual countries in the Middle East, Pyra said that Naval Group wants to increase cooperation with the defence industry ecosystem of countries, to enhance their sovereignty in terms of growing those countries' capabilities.

"We're open to that; it's in our DNA to transfer technology," he said, adding that the Belh@rra class/FDI allows fully outfitted modules to be built in a client's country.

In Saudi Arabia, for example, it provides support for the country's three Al Riyadh-class frigates, variants of the French La Fayette class.

In line with the Kingdom's Vision 2030 policy of diversifying the economy away from hydrocarbons, Naval Group is 'localising' its support contract for the ships through training local technicians and a project management team.

"We're starting to manufacture some spare parts and we're qualifying Saudi industrial partners," said Pyra. "We're aiming to qualify more than 50 suppliers for this programme."

Naval Group has partnered with the Kingdom of Saudi Arabia for nearly 40 years. It initially established a presence in Saudi Arabia in 2007 through Naval Group Support and further consolidated its position in 2013 following the creation of its subsidiary Naval Group Arabia. ▲



Where it's @:  
Naval Group says that the Belh@rra is the first warship to be designed from the outset with protection from cyber threats



NEWS IN BRIEF

ERAF products support regional militaries

Established in 1996 as a manufacturing services provider for the military in the region, Saudi Arabia-based ERAF (Hall 3 stand XB5) installs its products on new and old platforms.

The company's activities include land, naval and power systems, armoured turrets, remote weapon stations (RWS) and electro-optic and countermeasures systems. ERAF is also involved in command, control and communications, as well as radar sensor systems.

On the stand is the Metras multirole vehicle (MRV), designed with an integrated blast mitigation system, comprising a V-shaped hull. This forward-facing 4x4 all-terrain vehicle with 2,000kg payload carries a crew of two, plus six personnel. Powered by a MAN diesel engine, it has a top on-road speed of 120 km/h.

Sea trials set for Saudi-Turkish uncrewed vessel

Saudi Arabia's National Company for Mechanical Systems (NCMS) is preparing for sea trials of the second version of a small uncrewed vessel being co-developed with Turkey's Sefine Shipyard.

The vessel taps into the accelerating trend for uncrewed systems; the vessel, 15m in length with a beam of 3.85m and a draught of just 0.82m, is designed to handle multiple missions, depending on equipment fit.

The model on display at the NCMS stand has four stern-mounted anti-submarine torpedo tubes and two box launchers for small surface-to-air missiles, but the vessel is designed to be able to swap mission systems, allowing it to switch to mine countermeasures or electronic warfare work, for example.

Riyadh-based NCMS says that the initial version used French diesel engines, but the second prototype will take advantage of its Turkish connection and use a pair of 600hp powerplants that will

be capable of driving the vessel at 45kts. The prototype of the second version – the first was a purely Turkish project – is scheduled to start sea trials in June.

Uncrewed vessels have sprung into prominence recently in the Russia-Ukraine conflict, with the

Ukrainian forces using low-profile surface drones to attack Russian naval units, with some success.

Just over a week ago, a mass attack of around six such drones is reported to have sunk a Russian Tarantul-class missile corvette in the Black Sea.



A model of an uncrewed vessel on display at NCMS stand has four stern-mounted anti-submarine torpedo tubes and two box launchers for small surface-to-air missiles

Lion's Den takes aim at Saudi firearms market

The Lion's Den – a new name to WDS visitors – is aiming to become the Kingdom's foremost designer and producer of firearms and ammunition for the Saudi military.

Formed in 2018 as a privately owned enterprise, The Lion's Den has been developing its own range of pistols, assault and sniper rifles, all designed and produced in-house, said founder and chief executive Faisal Al-Rabiah. The company owns the designs and IP for all models of its firearms, he noted.

In November, the firm gained a manufacturing licence from the



Faisal Al-Rabiah, founder and chief executive of The Lion's Den which has brought its range of Saudi-designed and produced firearms to WDS for the first time

Saudi authorities to begin manufacturing its range of firearms. Currently it's in discussion with GAMI to select a location in Saudi Arabia where it can site its production facilities. Its plan is to begin series production of its range of firearms in the next two years.

"Following several years of development, The Lion's Den is now ready to publicise ourselves to end-users and showcase our capabilities," said Al-Rabiah. "At the show, we will engage with government entities in Saudi Arabia and in international markets."

A highlight on The Lion's Den stand is its LD1 semi-automatic pistol which has what Al-Rabiah described as the industry's first two-axis short, double-action trigger system. "It is safer, faster and makes the trigger crisper and smoother," he said.

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NEWS IN BRIEF

Italians look for comfort in space

Italian company Argotec harbours space ambitions with its small satellites for deep space and the development of new technologies to support astronaut comfort. Founder and CEO David Avino said: "Argotec has been a key player in historic missions such as LICIACube (NASA Dart), named Mission of the Year 2023 by the American Institute for Aeronautics and Astronautics, and ArgoMoon (NASA Artemis 1), the sole European satellite aboard the SLS launcher. "The Saudi area is strategically important for us and we hope to attract investors to strengthen our presence during WDS." The company is also currently developing 40 high-tech Earth observation satellites, many of which will come to life in the new SpacePark, an automated facility in the Turin region capable of producing up to 52 satellites per year.

Brazilians wax lyrical on Armadillo rocket launcher

One of the lightest, most compact and fastest rocket launchers on the market is being shown by Mac Jee Defesa (Hall 1 stand G6). The company is part of Mac Jee Group, recently accredited by the Brazilian Ministry of Defence as a supplier of strategic defence products. Designed for extreme operating conditions, such as sandstorms, heavy rain or heat and cold, the Armadillo vehicle has high offensive power. It retracts the 70mm rocket launch system during the non-offensive phase. With one module in its launch pod and three modules in the ammunition compartment, it can fire more than 70 rockets in a few minutes. The 70mm rockets have a range of 3-12km. An automatic reload system with two extra pods ensures quick reload of a fresh round of rockets. The auto-load feature allows for a reduced crew. The light platform is stabilised to ensure superior precision.

Importantly, the systems are fully integrated with communication, localisation and firing systems connected with the command centre. Established in 2007, the company that is headquartered in São Jose dos Campos in Brazil, has a global presence, with facilities in France and manufacturing capabilities in the Middle East.



The Armadillo is designed for extreme operating conditions, such as sandstorms, heavy rain or heat and cold

Korea pursues Saudi interest in joint KF-21 programme

One exhibit here at the show that may attract particular attention is a model of the Korea Aerospace Industries (KAI) KF-21 Boramae fighter, which is displayed alongside a gaggle of adaptable aerial platform (AAP) uncrewed combat aerial vehicles (UCAVs). A South Korean delegation made an unannounced visit to Saudi Arabia on 23-26 January, meeting with Dr Khalid bin Hussein Al-Biyari, Saudi Arabia's deputy defence minister, and other officials. The two sides reportedly discussed the joint development of an advanced fighter based on the design of the KF-21. While some reports suggested the resulting aircraft would be a fifth or sixth-generation multirole fighter, this appears to be an ambitious claim. Though the KF-21 bears some resemblance to the

Lockheed Martin F-22 and F-35, the aircraft is not yet a low observable (LO) or 'stealthy' design, carrying its weapons externally/semi-conformally, and not having the kind of surface coatings that the US stealth fighters have. As a first step, KAI will produce a two-seat KF-21 variant with manned/unmanned teaming (MUM-T) capabilities and, under current plans, will upgrade the Block 2 KF-21 to an LO configuration, which would make it a fifth-generation fighter. KAI has also proposed developing a Block 3 KF-21, which it classes as a sixth-generation fighter. This aircraft would be larger, more stealthy and more capable, with more powerful engines, and operating as part of a 'system of systems' with unmanned effectors and adjuncts, building on



KAI is showing this model of the KF-21 fighter, in two seat form, surrounded by AAP UCAVs, the basis of the company's offer to Saudi Arabia the MUM-T effort. A small UAV known as air launched effects (ALE) will be integrated with an FA-50 Fighting Eagle under a technology demonstration programme before a larger AAP is integrated with the KF-21, which will control "at least four" of these small UAVs. By teaming with Saudi Arabia – and perhaps other Gulf nations – South Korea would benefit from access to the Saudi market, while Saudi Arabia itself would gain invaluable experience, which might later strengthen its hand should it want to join the Anglo-Japanese-Italian global combat aircraft programme.

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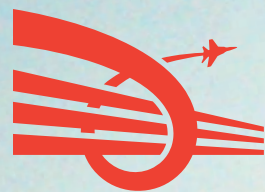
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## Hercules grip on regional market under threat

*Legacy Hercules C-130H aircraft dominate the market for medium-lift tactical transport in the Middle East – but for how much longer, asks Alan Warnes*

Blending into the background: the Royal Saudi Air Force is the biggest operator of the Hercules in the Middle East

Age is catching up with the 100-plus fleet of medium-lift tactical transport aircraft operated by air forces of the Gulf Cooperation Council (GCC) region and beyond, and competing OEMs are circling. In the frame are Lockheed Martin with its C-130J, Airbus and the C-295M/W, and Embraer's C-390.

Despite its current market share, Lockheed Martin has been frustrated as much of the region has turned its back on the newer and more expensive C-130J Hercules. Operators are preferring instead to upgrade the veteran C-130H airlifter with new glass cockpits.

The reason is easy to understand, considering that one C-130H upgrade might cost as little as \$1 million, including an autopilot, a legal requirement these days.

When you compare that to a new C-130J, estimated to cost around \$55 million, it is easy to understand why the likes of Egypt, Saudi Arabia and the UAE have so far stuck with their older mounts

and invested into their fighter fleets instead.

The major Middle East air forces are flying about 120 tactical airlifters with more than 70% of them being the Hercules. Until 10 years ago, that figure was closer to 100%, but Airbus and the C-295M/W have made inroads more recently, with the Egyptian air force now flying 24 C-295Ms and 23 C-130 Hercules.

C-130H Hercules examples have been operating since the 1970s but despite Lockheed Martin's efforts, only four countries have acquired the C-130J tactical airlifter. Kuwait has three KC-130Js, Oman has four C-130Js and one C-130J-30, Qatar has four stretched C-130J-30s, and Saudi Arabia has two KC-130Js.

### New customer

Qatar was a new customer for the Hercules, while Oman already operated three C-130Hs upgraded with the Rockwell Collins Flight 2 avionics management system.

Collins has upgraded 75% of the world's C-130s with new

**"C-130H Hercules examples have been operating since the 1970s but despite Lockheed Martin's efforts, only four countries have acquired the C-130J tactical airlifter..."**

avionics. The work can include a digital glass cockpit with six multi-function displays (MFDs), alongside enhanced main instrument panels, hydraulic displays, ergonomic man-machine interfaces and NVG-compatible lighting. The upgrade is also global air traffic management (GATM) compliant.

Considering the upgrade work, extending the service life of the three Oman C-130Hs by another 20 years goes some way to explaining why many are opting for that option – another reason why Lockheed Martin has failed to sell more than 14 C-130Js

➔ CONTINUED ON P33





# THALES EXPERT IN MILITARY NAVAL COMMUNICATIONS SYSTEMS

## THALES OFFERS MILITARY NAVIES MODERN COMMUNICATIONS SOLUTIONS ADAPTED TO THEIR NEEDS

Communications' reliability and quality are determining factors in the success of military naval missions where permanent, fluid and secure exchanges of information are necessary.

Modern navies must be able to rely on a solution allowing them to communicate with all the players involved in the mission, whether at short, medium or long distance.

This solution must be running in a contested environment and must allow the ship to be interoperable with other air and ground weapons, of the same country as well as with allies.

## THALES TURNKEY SOLUTIONS

To meet these needs, Thales, a major player in naval communications, has developed the Aquilon integrated communications system. It is both a global and tailor-made solution.

To define the communications system suitable for each ship and missions, Thales draws on its own expertise in designing communications systems based on different building blocks:

- UHF Radios, Frequency evasion and fixed frequency UHF Radios for communications within the fleet;
- HF radios for long distances, including the new HF XL standard developed by Thales that improves the resilience of HF and increases the throughput by a factor of 5, allowing

access to IP services via HF;

- SATCOM stations for long-distance, high-speed communications;
- the COMTICS intercom solution which allows sailors to communicate on board via telephone sets or smart phones but also to communicate off board via radios;
- the PARTNER-C management software, the real nerve center of the communications system, which allows you to control, configure, identify all equipment and services, and correct technical problems.

The communications system can also integrate elements provided by the customer or partners, as well as equipment specifically designed for the occasion.

## THALES IS SUPPORTING SAUDI ARABIA'S NATIONAL SOVEREIGNTY VISION NOTABLY IN DEFENSE

Thales has a longstanding presence in the Kingdom of Saudi Arabia of over 50 years.

Thales has established a strong foundation for cooperation with the defense forces in the Kingdom, working closely with Royal Saudi Air Defense, Royal Saudi Air Force, Royal Saudi Naval Force, Royal Saudi Land Force and Saudi Arabia National Guard & Saudi Arabia Royal Guard. Involved in Air and Land communications radios and solutions, Thales has also been providing naval communications solutions to the Kingdom since 1997.

Moreover, with the launch of the Vision 2030, Thales has further reinforced its commitment to localizing its Defense activities in the Kingdom

of Saudi Arabia through the creation of a Joint Venture with Saudi Arabian Military Industries (SAMI).

This JV, SAMI Thales Electronic Systems, has an initial focus on Air Defense Systems, Missile Electronics, Radars, Communications Systems and Optronics programs, and can extend to the Thales defense portfolio.

## 40 YEARS OF EXPERIENCE IN THE FIELD OF COMMUNICATIONS SYSTEMS

Equipped with the latest standards in information technology and cybersecurity, Aquilon also adopts the best practices in terms of ergonomics. Its modern and intuitive PARTNER-C communications management system was designed and perfected in close collaboration with French sailors. Its development is based on the unique expertise of Thales which, for 40 years, has deployed its solutions on more than 140 boats in almost 40 navies around the world.

Drawing on a regularly renewed range of products, and integrating innovations as they develop, Thales has been offering the latest generation communications system since 2020 which has already been contracted by 5 navies.

The force replenishment vessel (BRF - Bâtiment Ravitailleur de forces), Jacques Chevallier, a class of future fleet tankers in French Navy service, is the first boat delivered to a navy that is equipped with it.

It sailed in January in the waters of the Arabian Gulf and the Red Sea as part of its long-term deployment before admission to active service.

Choosing Thales means benefiting from equipment tested in their daily use within leading navies, on all types of vessels.

And it also means preferring the expertise of a Group that masters all communication equipment, associated cybersecurity and end-to-end connectivity, these core functions are all crucial to design a system that meets the specific needs of a fleet.

In fact, thanks to its modular architecture, Aquilon easily integrates with existing equipment, and represents a complete solution for ships of all sizes.

Thales also offers service solutions that contribute not only to forces training and the equipment preparation but also to the autonomy and security of buildings.

Finally, with its historic presence in the Kingdom of Saudi Arabia, Thales can generate activities locally through transferring production, knowledge and technologies. ●



## Focus on transporters

● CONTINUED FROM P31

in the region.

The Saudis have 39 legacy Hercules, in service since 1974. The surviving C-130H/H-30/KC-130H/L100-30 and VC-130Hs were to be given a full cockpit and avionics system upgrade from 2010 onwards, implemented by Esterline CMC Electronics. However, work was stopped without explanation after 23 had been upgraded.

In recent years, the Saudi MOD has been trying to upgrade the remaining 16, and a deal has now been awarded to Saudi Arabian Military Industries (SAMI) which has contracted Minnesota-based Canard Aerospace to carry out the upgrade work.

The solution is as close as possible to the previous 23 aircraft, with a CMC system and navigation accessories. Astronautics Badger Pro flight displays are also believed to be involved.

Back in 2012, the US Defense Security Cooperation Agency (DSCA) notified Congress of the possible sale of 25 Hercules to Saudi Arabia comprising 20 stretched C-130J-30 and five KC-130J variants. Reports suggested the total value of the contract would be in the region of \$6.7 billion.

However, only two KC-130J tankers were contracted and subsequently delivered in 2016. Lockheed Martin still remains hopeful of a follow-on deal, but so far nothing has at least been made public.

At one point, the Saudis were seriously considering an upgraded Antonov An-32, known as the An-132, under an agreement between Saudi's King Abdulaziz City for Science and Technology (KACST) and Ukraine's Antonov, along with the An-178, but both projects fell through.

Embraer, with an increasing number of K/C-390 Millennium sales, is marketing its new tactical airlifter to Saudi Arabia. And that's no wonder: over the past year, the aircraft has won some unlikely contracts from Europe. The Netherlands has taken five, Austria four, and Czech Republic two – all to NATO standards – adding to original orders by Brazil for 19,



Portugal for five and Hungary for two.

## Sales traction

Clearly the C-390 has gained sales traction, and Embraer is hoping that will migrate to the Middle East market. As is widely known, companies wishing to work with the Saudi MOD must align their offer with the objectives of Saudi Vision 2030; that would include production, MRO and possibly transfer of technology.

Just before WDS, Embraer told *Show Business*: "We are confident that the C-390 delivers the best value proposition for Saudi Arabia and we are willing to establish a strong cooperation with the local industry based on the Memorandum of Understanding (MoU) that Embraer has recently signed [29 November] with SAMI."

The Embraer spokesman added: "The C-390 flies faster, farther and carries more payload than other aircraft in the medium transport category. Overall, the C-390 delivers more capability with less maintenance and lower life cycle costs."

There was speculation in early 2024 that Saudi Arabia was going to replace its 39 Hercules with around 33 Embraer C-390s.

The UAE air force and air defence operates three C-130Hs, as well as a C-130H-30 and three civilian-configured L-100s. Work to upgrade the Dubai air wing L-100s was awarded to Abu Dhabi's Global Aerospace Logistics (GAL), working with an

**"We are confident that the C-390 delivers the best value proposition for Saudi Arabia and we are willing to establish a strong cooperation with the local industry based on the Memorandum of Understanding (MoU) that Embraer has recently signed [29 November] with SAMI"**

EMBRAER

iAccess solution.

Work has stopped on the first example because, according to one source, "the package that was delivered isn't complete, and doesn't for example include an autopilot in the purchase which is a requirement."

So there has been no C-130J acquisition by the UAE despite an announcement by the US government on 25 February 2009, that the C-130J-30 had been selected to replace the existing fleet of C-130H aircraft. A formal order for 12 examples was expected to follow, including some KC-130J. Nothing transpired.

The UAE did however announce an order for five Airbus C295Ws at the Dubai airshow in April 2019, to replace existing CN235s that were delivered between 2019 and 2021.

Kuwait operates three KC-130Js acquired under a \$245 million

contract that led to their delivery in 2014. Five years earlier, on 15 July 2009, the DSCA notified US Congress of the possible sale of eight KC-130Js to Kuwait, plus associated equipment, parts and support for an estimated cost of \$1.8 billion.

Jordan took delivery of three excess defence articles (EDA) ex-USAF C-130Hs delivered in 2021/22, but they need an avionics upgrade. This will undoubtedly come through the FMS, that means L3Harris with its avionics modernisation programme Increment 2 will be the winner. The RJAF also wants another three EDA ex-USAF C-130Hs.

Egypt has the biggest fleet of Airbus C295s – 24 of them delivered between 2011 and 2016, to take over much of the internal flying work from its 23 ageing but operational Hercules that have been in service since December 1976. Due to their high hours, the Egyptian air force prefers to use these for longer international missions.

So far, despite the best efforts of Airbus with at least two Middle East A400M tours, the aircraft has not been favoured. Undoubtedly, the bad press the A400M has gained in recent years with the loss of an aircraft, gearbox problems etc has not helped.

While the days of the Hercules in the Middle East are far from over, there is now at least one new kid on the block: the Embraer C-390 could be set to break the Hercules dominance. ▲



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The Ajban Mk2's modular construction allows it to support multiple operational roles and integrate a range of mission systems



▲ The LRSOV has four crew seats plus a jump seat, providing all-round situational awareness

Nimr, part of the UAE's Edge Group, is showcasing a formidable array of its proven wheeled military vehicles on the UAE Pavilion (Stand P1).

Marketed under the slogan 'Built for Battle', the Hafeet Mk2 in 6x6 configuration provides impressive performance and mobility for a vehicle of its class. Thanks to a powerful 268kW (360hp) engine delivering 1,100 Nm, and a six-speed automatic transmission, the vehicle can travel at speeds up to 110 km/h.

It features a modular construction allowing for the rapid removal of the complete power pack, including cooling, engine, transmission and transfer case.

As a multipurpose platform, it serves as armoured personnel carrier, ambulance, surveillance and observation vehicle or in artillery application. It can be configured with larger interior layouts and increased crew capacity. The monocoque V-hull integrated with engine protection (STANAG 4569 AEP-55) serves to enhance crew survivability.

The 'Ready for Action' Ajban Mk2 light tactical patrol vehicle is a full-time 4x4 multirole vehicle carrying a crew of five. It is powered

*Armoured vehicles from the stable of the UAE's Edge Group are building a strong presence in the Middle East and North African region*

by a water-cooled turbocharged diesel engine. The V-hull unit structure offers effective mine-blast protection, complemented by a ballistic-protected rear cargo compartment.

In addition to a roof-mounted self-defence weapon, it has a central tyre inflation system (CTIS) allowing tyres to be inflated or deflated to meet terrain conditions.

Nimr says its modular construction allows the Ajban Mk2 to support multiple operational roles and integrate a range of mission systems. The ruggedised vehicle suspension can handle off-road terrain and dynamic loads up to five times gravitational force.

Another 4x4 vehicle on show is an open-top long-range special operations vehicle, the Ajban LRSOV. As the name indicates, it is especially suited to long-range reconnaissance missions typically

undertaken by special forces.

Not only is it light and powerful, capable of accessing all types of terrain, but importantly, the Ajban LRSOV can be underslung for transport by helicopter.

The vehicle's open cab allows for the fitment of a variety of weapons and mission systems. Nimr says the vehicle's generic architecture will allow fitment of user-supplied communications equipment.

The LRSOV has four crew seats plus a jump seat, providing all-round situational awareness. In addition to small gun mounts at all crew positions, a specially designed ring enables it to carry a large-calibre machine gun. The vehicle is highly mobile with a high power to weight ratio, a stiff chassis and advanced independent suspension.

Being a variant of the Ajban class, it is like all Nimr vehicles that have a universal 4x4 chassis for a common logistic footprint, for the user to minimise the burden of training, maintenance, and spare parts management.

An upgraded version of the Ajban LRSOV, announced in early 2023, features a high-strength rollover protection system, front and rear underslung capability, adaptive roof ring mounting, and removable and foldable roof struc-

ture for ease of transportation.

It was simultaneously announced that Nimr would be supplying 10 of these vehicles to the Algerian armed forces. At the same time, Abrie du Plessis, Nimr chief executive, said: "Signing this deal with our long-standing partners in Algeria demonstrates not only the quality and performance of our new LRSOV, but also Edge and Nimr's commitment to increasing national exports."

At the 2022 edition of World Defense Show, Nimr signed a manufacturing licence agreement with Saudi Arabian Military Industries (SAMI) to transfer technology for the production of Nimr's combat-proven Jais 4x4 vehicle in Saudi Arabia. By enabling local manufacture of the Jais vehicle, the two countries underscored their commitment to diversifying their economies, developing local talent, and establishing high-technology industries.

This followed on the launch of the Land Systems Industrial Park in Riyadh, a new industrial complex aimed at localising defence industries and building local capabilities in the field of engineering and design of ground systems, testing, and further qualifying systems. ▲





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Saudi blanket training

## US clears way for KSA \$1bn training package

*The US State Department has approved a possible foreign military sale (FMS) to Saudi Arabia of blanket order training and related equipment, reports Alan Warnes*

A blanket order for training and related equipment, with an estimated cost of \$1bn, was approved on 22 December by the US State Department.

The last previous Defense Security and Cooperation Agency (DSCA) notification for blanket order training came in June 2017, and was valued at \$750 million.

This latest notice says: 'The Kingdom of Saudi Arabia (KSA) has requested a continuation of a blanket order training program inside and outside of the Kingdom of Saudi Arabia that includes, but is not limited to, flight training; technical training; professional military education; specialised training; mobile training teams (MTTs); technical assistance field team (TAFT); extended training service specialists (ETSS); and English language training.

'This training for the Royal Saudi Air Force (RSAF) and other Saudi forces will include such subjects as civilian casualty avoidance; the laws of armed conflicts; human rights; command and control; and targeting via MTTs and/or broader programs of instruction (POIs). Program management; trainers; simulators; travel; billeting; and medical support may also be included.'

### Security solutions

Kratos Arabia, a subsidiary of Kratos Defense and Security Solutions based in Sacramento, California, is known to be heavily involved in such work in Saudi Arabia.

The company's website says it is "fully registered and licensed" to provide national security solutions within Saudi Arabia's defence and national security markets. The company says it focuses in areas where technology advances can have a force multiplier effect, such as with warfighter training, unmanned systems, satellite com-

munications, C5ISR and combat systems.

Kratos offers skills through a variety of sectors. Its Unmanned Systems Division is made up of two business units: Kratos Unmanned Aerial Systems (UAS) and Kratos Unmanned Control Systems (UCS). They provide high-performance aerial target systems and advanced unmanned tactical aerial platforms.

Kratos Arabia provides turn-key aerial target services along with personnel who deploy to customer-specified locations to perform aerial target-related missions. The UCS delivers advanced unmanned vehicle technology such as command and control (C2) and vehicle management systems for air, land, and sea effectiveness.

Kratos has been developing avionics and ground support C2 systems for high-performance unmanned aerial vehicles (UAVs) for more than 40 years. It has leveraged this experience to develop a swarming capability for small

UAS (sUAS) drone platforms. This enables a single operator to control multiple platforms at one time, creating an ideal solution for supporting training and combat/tactical applications.

It's highly likely that the blanket order training includes the Kratos sUAS swarming solution, called Wolf-Pak. The company says: "This innovative technology utilises the collective behaviour of multiple autonomous vehicles following a leader vehicle."

### Constant adjustment

Each vehicle in the swarm can recognise and locate each other vehicle to offer a true swarming configuration. All vehicles stay within a predefined distance of each other and the swarm constantly adjusts and reconfigures itself without relying on a centralised control system.

"This capability is a platform enabler for distributed airborne tactics that can be adapted to a variety of different aerial platforms

and mission objectives," says the company. Kratos is a leading provider of state-of-the-art, high-performance aerial target drones.

Through an in-depth understanding of the aerial target mission, its suite of targets includes the BQM-167A air force subscale aerial target (AFSAT), BQM-177A subsonic aerial target (SSAT) and the MQM-178 Firejet.

The latter fills a variety of end-to-end weapons-release training roles, including surface-to-air and air-to-air. The smallest of Kratos's aerial targets, Firejet is capable of carrying a combination of internal and external payloads, including tow targets, proximity scoring, passive and active radio frequency (RF) augmentation, and infrared (IR) augmentation.

It can be flown in a wide variety of speed and manoeuvrability profiles and would be particularly useful for RSAF fighter pilots to train against incoming missiles or combat drones. ▲



### TARGET PRACTICE

A BQM-167 AFSAT is likely to be used alongside the BQM-177A SSAT and MQM-178 Firejet by Kratos to provide aerial targets to train Royal Saudi Air Force fighter pilots against combat drones and missiles



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# STRENGTH THROUGH PERFORMANCE



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Alan Dron reports

BAE Systems has held a significant place in Saudi Arabia's defence landscape for more than five decades. Steve Clutton, managing director, BAE Systems Saudi Arabia, details the company's current work

# Magic Carpet and beyond...

Ever since the UK supplied the Royal Saudi Air Force with a package of English Electric Lightning interceptors and BAC Strikemaster advanced trainers in the 1960s under the codename Magic Carpet, the UK has had a foothold with the country's air arm.

That continues today with BAE Systems having provided fleets of Tornado strike aircraft, Hawk advanced trainers and Eurofighter Typhoon multirole combat aircraft, as well as assisting with their ongoing support, maintenance and logistics.

"Under the long-term Saudi-British defence cooperation programme (SBDGP), we secured a new five-year contract in 2022 to continue our support to providing ongoing support to the Royal Saudi Air Force's (RSAF) Tornado fleet and providing training for RSAF aircrew utilising our Hawk training aircraft," Clutton explained. "We continue to provide essential support and maintenance to the RSAF Typhoon fleet through long-term arrangements, through to the end of 2027."

That support role may increase in the near future if a long-awaited order for an additional 48 Typhoons, to add to the original contracted 72, finally comes to fruition.

Clutton is naturally circumspect on the prospect of future orders,

**"We continue to pursue a number of export opportunities for Typhoon in the Middle East and in Europe, and discussions on a further requirement of Typhoon aircraft are ongoing between the governments of Saudi Arabia and the UK"**

given the sensitive nature of contract negotiations.

"We continue to pursue a number of export opportunities for Typhoon in the Middle East and in Europe, and discussions on a further requirement of Typhoon aircraft are ongoing between the governments of Saudi Arabia and the UK."

Any further contract would further increase BAE Systems' role in supporting Saudi Arabia's Vision 2030 policy, which aims to diversify the country's economy away from the hydrocarbons sector.

### Key capabilities

"As a partner in the Kingdom for more than 55 years, we are proud of the contribution we're making to the objectives of Vision 2030," Clutton said. "For many years we've been transferring key capabilities, skills and technology into Saudi Arabia, both through the increased Saudisation of our own workforce, and by establishing and supporting Saudi companies as partners within our supply chain."

"Our partner companies are at the core of our long-term strategy in Saudi Arabia, representing a portfolio of capable and established Saudi companies which are playing a key part in growing the wider Saudi industrial base and enhancing skills and capabilities."

"We also recognise the importance of making a contribution to society which extends well beyond the technology, services and equipment we provide, such as enhancing skills and empowering women in the workforce, supporting the Kingdom's aim through Vision 2030 for women to account for 30% of the country's workforce."

"Developing a national workforce is a key part of our strategy and I'm proud of the progress we're making. Today, around 77% of the 7,000 people we have working in the Kingdom are Saudi

nationals. This includes more than 300 female employees, which has increased more than five-fold over the past eight years, and will continue to grow."

Like several major Western companies, BAE Systems is aiming to extend its involvement with the country's young population through partnerships with educational establishments.

"Underpinning that commitment is our university collaboration programme which sees us work with a number of universities across the Kingdom," said Clutton. "Al-Majmaah University was established in 2009 and is focused on expanding higher education provision across the country. We

have been in discussions relating to our involvement and support to the establishment of a new science, technology, engineering and maths (STEM) facility at the university, and a longer-term collaboration programme."


The company is also engaged in the country's naval forces, Clutton added. "Under our SBDGP programme we provide support to the Royal Saudi Naval Forces including training of technicians and logistics and technical support to the Al Jawf minehunter vessels" – versions of the UK's Sandown-class minehunters.

"We continue to support the UK government in discussions with the RSNF on future requirements." ▲



As a partner in the Kingdom for more than 55 years, we are proud of the contribution we're making to the objectives of Vision 2030, says Clutton






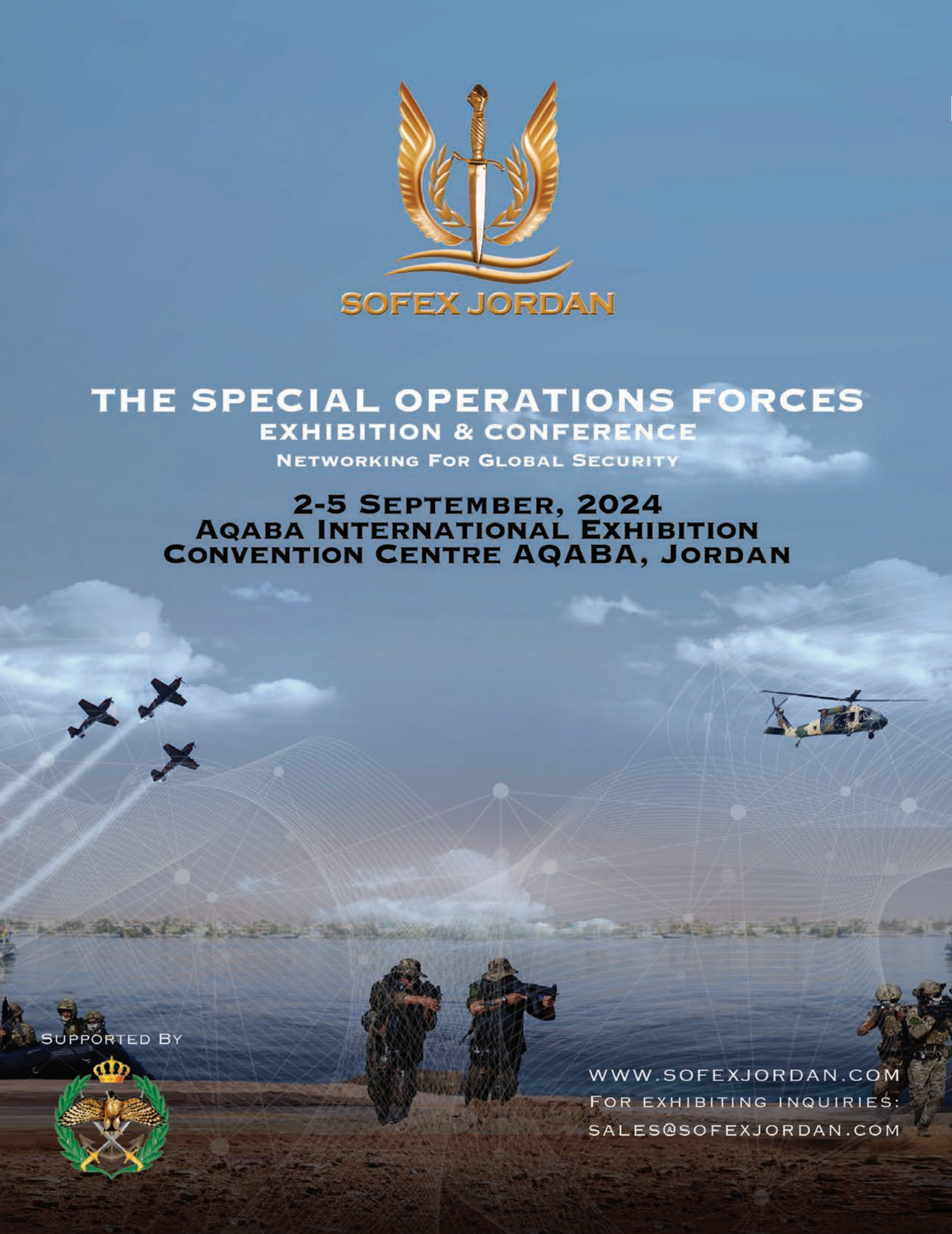
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