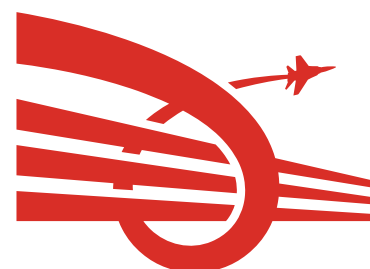


Issue

2

Thursday
14 November 2024

FLIGHT DAILY NEWS



معرض البحرين الدولي للطيران
**BAHRAIN INTERNATIONAL
AIRSHOW**
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A royal start

His Royal Highness Prince Salman bin Hamad Al Khalifa, Prime Minister, Crown Prince, and Deputy Supreme Commander of the Bahrain armed forces, toured the static ahead of yesterday's official show opening. He spent time at the US Air Force's Boeing B-52 among other exhibits.



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Valo means business

Start-up has big dreams after becoming Bahrain's first private aviation operator

Murdo Morrison

Valo Aviation has become Bahrain's first home-grown business jet charter operator, marking its formal launch at the show with its first aircraft, a Kuwaiti-owned Gulfstream G550.

Chief executive Hanna Hakamo, who says the company spent two years working with the Bahrain regulator to achieve its air operator's certificate (AOC), has big ambitions for the enterprise. She believes it could have up to 15 aircraft within two years.

The management company, which has no plans to own jets, is also in the process of obtaining

the equivalent of Part 145 maintenance approval and plans to open a purpose-built hangar at Bahrain airport, says Hakamo, who previously worked for a European maintenance organisation.

She adds that the process of getting an AOC in Bahrain was challenging at times. "There was a lot of work to make this happen as we were working with a regulator more used to commercial airlines," she says. However, she believes that Bahrain's "central location" as well as the regulator's "business-friendly approach" will help attract other private jet owners to base their aircraft in the kingdom.

"This is very much our home. We have an ambition to grow the business aviation sector here in



Hakamo: Ambition is for company to be operating 15 aircraft within two years

Bahrain," she says.

While Valo Aviation's first aircraft is a Gulfstream, Hakamo says the company is also working closely with local representatives of Dassault. The main image on its web site is a Falcon 8X.

Bahrain has flirted with business aviation operations in the past, but none have survived the course. The United Arab Emirates – and particularly Dubai – remains the epicentre of the industry, with dozens of management companies, fixed-base operations and brokerages based there. Saudi Arabia has the region's largest number of business jet owners and users in the region, although many aircraft operating out of there are registered elsewhere.

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Technology will play role in protecting new Lockheed Martin F-16 fighters operated by nations including Bahrain



US Air Force

L3Harris readies for Viper Shield EW flight trials

Craig Hoyle

L3Harris is anticipating the launch of a flight-test campaign involving its Viper Shield electronic warfare (EW) system – technology that will play a key role in protecting new Lockheed Martin F-16 fighters operated by nations including Bahrain. The US company announced last week that it had completed laboratory-based safety of flight qualification activities on Viper Shield, during which it “passed a series of environmental and electrical tests across structural integrity, thermal and electrical safety, and aircraft aerodynamics”. Additionally, the system “handled the [simulated] stresses and strains of normal and extreme flight manoeuvres... and proved to be safe, reliable and effective”. Flight trials are likely to commence before year-end at the US Air Force’s (USAF’s) Edwards AFB in California using a Block 70-standard F-16. The identity of the aircraft’s owner has not been disclosed, but two Royal Bahraini Air Force examples are currently located at the site. An all-digital system using six line-replaceable units and a cockpit display, Viper Shield will enhance a pilot’s situational awareness, “and

helps them identify, locate and counter threats to enable survivability and lethality in the most challenging environments”, L3Harris says. In use, the system “counters modern radar threats with immediate detection and advanced jamming responses”. Crucially, the technology – which combines radar warning receiver and electronic countermeasures capabilities – can be installed without external modification to the F-16, and is fully integrated with the Block 70/72’s Northrop Grumman APG-83 active electronically scanned array radar. L3Harris is on contract to provide Viper Shield to “six international partners”, as baseline equipment on 168 new F-16s. The latest version of the type is operational with or on order for the air forces of Bahrain, Bulgaria, Jordan, Morocco, Slovakia, and Taiwan. The company expects to have a seventh customer “very soon”, with at least another two near-term prospects, says Travis Ruhl, director of international business development, electronic warfare, airborne combat systems. Such announcements are likely to involve the provision of Viper Shield to equip older-model, mid-life update-standard F-16s for an undisclosed nation, he indicates.

System deliveries are due to start late next year, with the technology to enter operational use in 2026. “Viper Shield is well along the development curve,” notes the former USAF F-16 pilot. The company adds that its system also has been designed “to allow for future capability upgrades, ensuring it can adjust to an evolving electromagnetic spectrum environment”. With its EW offering, L3Harris looks set to benefit from Lockheed’s late order revival with the F-16: first flown in prototype form 50 years ago. “People like the aircraft, and the capabilities it brings,” Ruhl says. L3Harris is also currently working on a pod-housed version of the Viper Shield system. Separately, it is advancing development of a so-called Distributed Spectrum Collaborative Operations – or DISCO – capability which will enable operators to make and share near real-time updates to EW threat libraries to swiftly counter hostile action. The DISCO technology has already been showcased during a Valiant Shield exercise conducted in the Pacific region.

Power provider

Ground power unit specialist ElectroAir is at the show for the first time as it looks to add to its tally of more than 500 military and commercial customers in 102 countries. The Estonian company, which was established 18 years ago, numbers Abu Dhabi airport, Saudi Ground Services, and several US military bases among those in the region operating its equipment. “We were at the Farnborough air show in July and the organisers persuaded us to give Bahrain a go,” says Aleksandr Skrebnev, vice-president of sales and marketing (pictured right, with regional sales manager Mahmoud El Hassan). Although the company still offers diesel- and kerosene-powered units – often popular with military customers – electric and hybrid-electric equipment is increasingly in demand, according to Skrebnev. “Eco is a big trend. There are fewer emissions and no noise,” he says. Among the Harjuma-based company’s credentials is its NATO supplier status.



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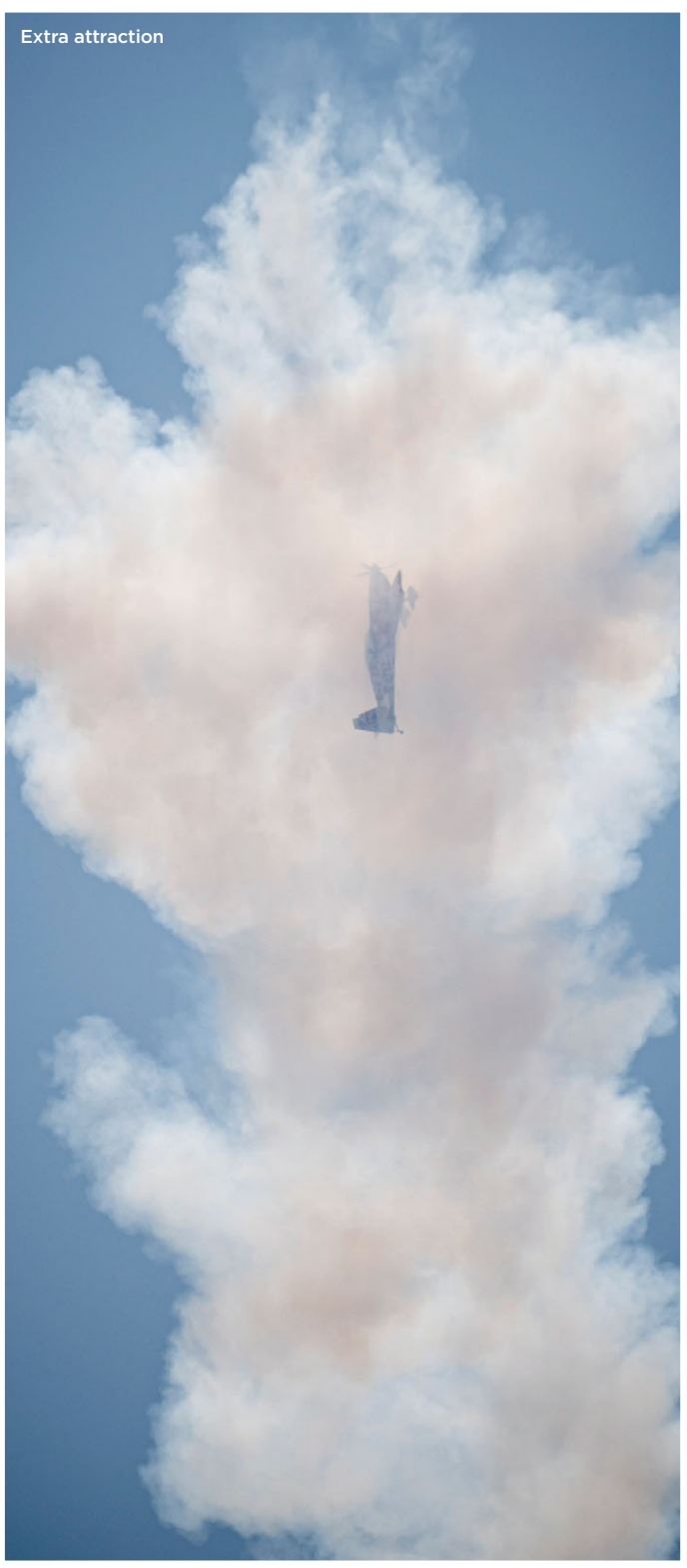
Red all over the show



Our *Flight Daily News* distribution team – in their familiar red flight suits – take a break from handing you the air show’s best daily. FlightGlobal has been producing *Flight Daily News* at leading air shows around the world – including Paris, Farnborough, Dubai, and Singapore – since the 1980s. We launched *Flight Daily News* at the Bahrain International Airshow in 2022.

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Extra attraction



Global Stars: tight formation



Pakistan's JF-17 Thunder



Poseidon adventure: US Navy P-8A



Flight show

We bring you some of the attractions from the opening-day aerial spectacular

Falcon rises:
US Air Force F-16



Show of force: B-52s pair up



Riyadh displays its Typhoon



India's Sarang display team



Home favourite: Gulf Air 787



Precision performers: Saudi Hawks



Bell targets opportunity for Cobra fleet renewal

Craig Hoyle

Bahrain's military fleet renewal could be set to advance further, with a potential acquisition of ex-US Marine Corps (USMC) Bell AH-1W Super Cobra attack helicopters still in the mix.

An existing operator of legacy E/F-model Cobras, the Royal Bahraini Air Force (RBAF) has already significantly enhanced its capabilities via the introduction of 12 AH-1Z rotorcraft. Now fully operational, the last of the new assets were received in 2023.

In March the same year, the US Defense Security Cooperation Agency outlined a request from Manama to field 24 retired AH-1Ws, valuing a deal at an estimated \$350 million.

"The government of Bahrain has requested to buy equipment and services to refurbish 24 excess defence article AH-1W helicopters," it said at the time. The process is expected to involve using 31 stored aircraft.

The RBAF's current inventory includes 22 AH-1E/Fs, plus eight P-model trainers. While the fleet has been the subject of an upgrade activity performed by Turkish industry, replacing them with the W variant would represent a significant increase in capability.

"It is a testament to how these aircraft were built,



Out with the old? The RBAF currently flies aged AH-1s such as this one on display

with them being able to continue flying and maintaining them for as long as they have," Bell H-1 programme director Scott Sims says of the legacy model's longevity in RBAF service.

The USMC retired its final AH-1Ws in 2020, having replaced them with more capable AH-1Zs.

"Getting these aircraft back up to a flying capability is something that Bell ab-

solutely can do as the OEM, and we'd be more than interested to partner with the BDF [Bahrain Defence Force] and the United States government," Sims says.

Although this would be less lucrative than producing additional new-build AH-1Zs, he notes: "Aircraft flying for Bell is a good thing. We provide many service and sustainment options."

Meanwhile, "All indica-

tions are that they love their aircraft," Sims says of the RBAF's newly-fielded AH-1Zs, which also are supported by an in-country flight training device. "Their maintenance and operational crew are fully ready, and they are up flying the aircraft day-in and day-out," he adds.

"The BDF has learned fast," he says of the nation's ability to operate and maintain the

new model to the highest standard, while adding: "they are pristine aircraft".

Bell has also completed deliveries of four AH-1Z Vipers and eight UH-1Y Venom utility helicopters to the Czech Republic. It has 12 examples of the attack helicopter on order for Nigeria, with a contract having been signed earlier this year.

Slovakia has also previously expressed interest in potentially ordering the same number of AH-1Zs, and a letter of offer and acceptance was recently delivered to advance the potentially \$600 million deal.

"There are a lot of customers that are very interested" in the company's H-1-family products, Sims says, with additional orders to potentially include follow-on interest from existing users.

"Someone who has a Zulu [AH-1Z] today may want a Yankee [UH-1Y] tomorrow," he notes. The company produces the aircraft - which feature 85% commonality between the two models - at its Amarillo site in Texas.

Meanwhile, Sims says Bell is making good progress with a major H-1 modernisation activity being conducted for the USMC. Dubbed the Structural Improvement Electrical Power Upgrade, this will lay the foundations for the future integration of additional weapons and air-launched effects, ensuring the type's continued operational relevance.

Emirates showcases four-zone A380 but bemoans delays in 777-9 deliveries

Murdo Morrison

Emirates' chief operations officer yesterday described Boeing's delay in delivering the 777-9 - for which the Dubai airline is launch customer - "unique" in the industry's history.

Speaking at the show, Adel Al Redha, who is also deputy president, noted that certificating the widebody, launched in 2013, is now four-and-a-half years late. "We were expecting our aircraft in April 2021," he said.

His comments echo those of his boss, airline president Sir Tim Clark, who last month cast fresh doubt on the US airframer's latest target of delivering the first 777-9 in 2026. At the time, Boeing was hit by a strike by production line workers in the Seattle area.

However, here Emirates is putting the focus on its other flagship type, the Airbus A380, which has appeared at past editions of the biennial show. It is inviting visitors to sample the four-class, double-deck layout of the superjumbo, which includes the premium economy cabin that Emirates is rolling out across its entire A380 fleet.

Emirates is currently flying



Al Redha: Premium economy product has proved popular since its introduction in 2022

some 87 of its 106-strong A380 fleet - with others that were parked during the pandemic being returned to service.

Al Redha describes the airline as being "halfway" through a refurbishment programme on its entire fleet of 205 widebody aircraft, which also includes legacy 777s. A350s in a three-class configuration - business, premium economy, and

economy - will join the fleet next year.

Al Redha says the premium economy product on the A380 has proved "very popular" since its launch in 2022. "More people are asking for it," he says.

He dismisses claims that Emirates was slow to introduce a premium economy product - several other airlines began offering it more than a decade ago.

"Our premium economy is a different standard. It is not just about the seat. It is the whole experience," he says.

However, he admits that the impact of taking A380s out of use to refurbish the cabins has also been "operationally challenging at times".

Further improvements are coming. Al Redha says that Emirates will be the first airline to introduce electrically operated footrest and seat

backs in premium economy from next year.

Last week, Emirates reported a 2% rise in half-year pre-tax profit to a record Dhs9.7 billion (\$2.6 billion), citing strong passenger demand.

It hiked overall capacity for the period by 5%, including a 4% rise in passenger seat capacity, and achieved an average passenger load factor of 80%.

GACA pushes invest in Saudi message

Saudi Arabia's General Authority of Civil Aviation (GACA) is at the show promoting "the unprecedented investment opportunities in Saudi aviation".

As part of its Saudi Aviation Strategy, the kingdom aims to attract \$100 billion in investment, triple passenger traffic to 330 million, and connect the country to more than 250 destinations by 2030.

GACA is also presenting its Civil Aviation Environmental Sustainability Programme at the show, which it says "underlines its dedication to environmental sustainability".

Marvin puts it to the test

US defence engineering company Marvin is hoping to attract local interest in its SmartCan flightline test set, which it says can replace up to eight single units of armament testing equipment for operators of aircraft such as the Lockheed Martin F-16.

Southern California-headquartered Marvin already supplies the product to the US Air Force (USAF) and around 18 other countries, according to Steve Sargeant (pictured), chief executive of Marvin's test solutions unit and a retired USAF major general.

"Several neighbours in this region are looking closely at it," he says. "We believe we can do a lot for the air force here."

Test solutions is one of three business units within Marvin, the others being Marvin Engineering and Marvin Land Systems.

Marvin Engineering is a leading manufacturer of stores carriage and release systems, such as ejector racks, missile launchers, aircraft pylons and other auxiliary equipment.

The company is exhibiting as part of the Kallman US pavilion.



Flydubai makes Bahrain debut

Dubai carrier Flydubai is at the Bahrain show for the first time, displaying a retrofitted interior on a Boeing 737-800, with its signature lie-flat business-class seats.

Visitors to the aircraft yesterday and today have been able to tour the aircraft and see the product, which is now available on 15 of its 88-strong fleet of Boeing narrowbodies.

"We are excited to be here for the first time underscoring our commitment to the Bahraini market which we have been proudly serving since 2009," says chief executive Ghaith Al Ghaith. "This air show represents an opportunity for us to showcase our newly retrofitted cabin interior and reflects our commitment to passenger



The carrier's 737-800 on the static

comfort, integrating cutting-edge technology and design to elevate the flying experience."

Flydubai launched its retrofit programme in 2024 and by the end of next year will have installed it on around 20 aircraft, says the airline.

It adds that Bahrain is an important market, with Flydubai operating more than 2,800 flights between Dubai and the kingdom in the first 10 months of this year. It has been operating to Bahrain since 2009, carrying more than four million passengers during that time. It operates 31 flights on the route weekly.

Police's pioneer Scout

Craig Hoyle

The Bahrain Police Aviation Command is showing a colourful piece of local aviation history at the show: its first-ever helicopter.

Dominating the Ministry of Interior stand is a vintage Westland Scout, sporting a stunning red livery with yellow detailing.

The aircraft was operated by the police between 1965 and 1981, before being transferred to British Army ownership. The light rotorcraft – which was flown by two pilots and one crew member while active – was returned to Bahrain in 2019.

Its presence forms part of a drive to showcase and promote the activities performed by the police's aviation unit.

Also at the show, the command is displaying some of its modern-day assets: two Bell 412/EPs, including one configured with a VIP transport interior. Eight



The team from Bahrain Police Aviation with the vintage aircraft

of the type are employed across a variety of duties, including search and rescue (SAR), firefighting – using a bambi bucket –

and medical evacuation. Also on the same exhibition stand is a display highlighting the command's activities with drones.

Used since 2019, these are employed for tasks such as traffic and event monitoring, SAR duties, and 3D mapping.

FLIGHT DAILY NEWS

Produced by FlightGlobal, 1st Floor, Chancery House, St Nicholas Way, Sutton, Surrey SM1 1JB, UK

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Welcome to Bahrain

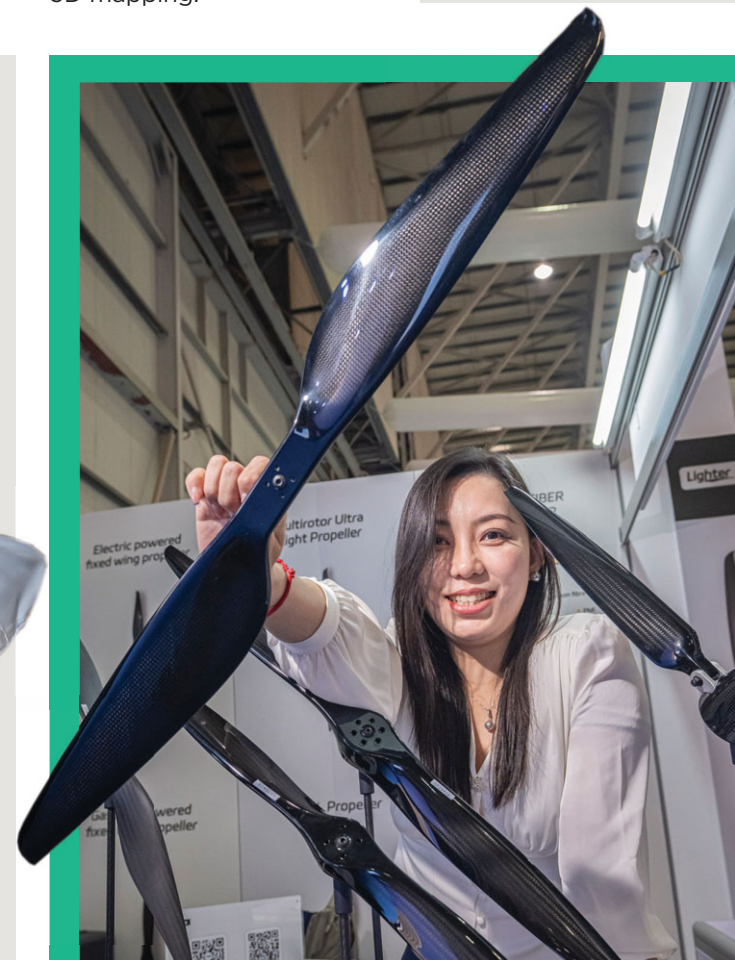
Arabic coffee, traditional hospitality, and a host of inspirational ideas for anyone spending leisure time in the kingdom are on offer to visitors to the Bahrain Tourism and Exhibitions Authority stand.

The exhibit includes a demonstration of traditional calligraphy, and lessons in opening oysters to search for pearls, which has been an industry in Bahrain for

thousands of years.

PinkAlien offers food tours of the country, while Kashta Entertainment is promoting sea trips, horse riding, and cycling excursions.

There is also a chance to sample local delicacies at the Bahraini food station. The stand has as its slogan "An island, limitless".



Top of the props

Chinese/Malaysian firm LighterPropeller is making its Bahrain show debut with its range of off-the-shelf and made-to-order, lightweight carbonfibre propellers for unmanned air vehicles (UAVs).

LighterPropeller, which manufactures its products in Henan and Kuala Lumpur, supplies several unnamed UAV manufacturers, says chief marketing officer Vicky Lee (pictured).

The company, which was set up in 2012, offers products from 18cm (7in) to 213cm in length.

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Dr Mohamed Ebrahim Al-Aseeri is chief executive of Bahrain's National Space Science Agency (NSSA). He outlines the role and achievements of the body, which was set up 10 years ago



Al-Aseeri:
Our journey
has been
marked by
success

Q The NSSA is celebrating its 10th anniversary. What have your achievements been and what are your ambitions for the next decade?

Over the past 10 years, the Agency has focused on fulfilling the directives set by His Majesty King Hamad bin Isa Al Khalifa, aiming for the Kingdom of Bahrain to be among the developing nations in the field of space while achieving sustainable and comprehensive development.

Our journey has been marked by success. We established the agency, formulated laws that define its authority, responsibilities, and operational guidelines, and created a robust organizational structure. Additionally, we recruited skilled talent, developed the national space policy and strategic plans, and began implementing these initiatives. Today, the agency stands as the national hub of expertise in space and related sciences, thanks to our talented young professionals.

In the space segment, our achievements include the launch of the first Emirati-Bahraini nanosatellite, Light-1, in 2022, and the completion of the fully Bahraini nanosatellite Al-Munther, which is expected to launch in 2025. We also completed the Aman payload, set to be launched aboard the United Arab Emirates' Mohammed Bin Rashid Space Research Center (MBRSC) 12U satellite in 2025, and initiated the AI rideshare programme in

collaboration with Startvision and Oman Lens, anticipated for launch by Q2 2025.

Additionally, we have begun work on the Arab 813 Earth observation satellite programme led by the UAE and are currently developing a payload to monitor greenhouse gas emissions in Bahrain and the Gulf region, in partnership with the University of Leicester in the UK and Geospatial Insights, funded by the UK Space Agency's International Bilateral Fund. We are also in the early stages of designing a Bahraini payload for a lunar rover, along with another payload intended for a lunar orbiter. We hope to launch these initiatives into space within the next five years.

In the downstream sector, the NSSA has completed a government needs analysis for space information and Earth observation data. We have partially established the NSSA's Satellite Imagery & Data Analysis Laboratory (NSSA Lab) and focused on capacity building, as well as space education and outreach efforts.

Notable achievements at the national level include the completion of several studies that address the needs of stakeholders, such as analyzing soil moisture and salinity, monitoring chlorophyll concentrations in plants, assessing mangrove density, and evaluating green areas in the kingdom. We have also conducted palm tree counts and health analyses, identified

and categorised greenhouse locations, and studied the impact of afforestation on temperature.

Additional studies include land and sea surface temperature analysis, evaluating the effects of sea level rise on land cover and land use, predicting dust storm trajectories, automating ship and oil spill detection in the Arabian Gulf, and measuring solar radiation power.

In terms of raising awareness, a study conducted in 2024 at NSSA revealed that public awareness and acceptance of the space sector in Bahrain has grown significantly over the years, increasing from nearly non-existent to over 50%. This progress is largely attributed to the NSSA's space education and outreach initiatives. For example, the agency organised more than 170 local events, 12 local competitions, 125 local workshops in schools and universities and 25 stakeholders specialized workshops.

Supporting research in space science, technology, and applications is a core mission of the NSSA. Since 2020, the agency has published over 75 research papers in prestigious conferences and top-ranked journals.

Additionally, the NSSA, in consultation with relevant stakeholders, has successfully completed the drafting of the National Space Law, a key milestone for Bahrain's space sector. This law will provide a comprehensive legal framework for space activities,

including satellite launches, research, and international collaborations. The announcement is expected within the near future.

The upcoming strategic plan outlines ambitious goals to enhance Bahrain's space sector. Key initiatives include establishing advanced facilities to support research and development, launching Earth observation satellites, and facilitating a joint satellite project with national universities.

The NSSA aims to achieve a historic milestone by launching the first Bahraini payload into space for lunar exploration and conducting the first Bahraini experiment in space.

Q Bahrain is a small nation. How do you ensure it can punch above its weight when it comes to the space sector, and how do you envision that sector growing in the country?

The Kingdom of Bahrain may be a small nation, but it has huge ambitions and leadership that believes in the importance of space for achieving comprehensive and sustainable development. Bahrain has strategically positioned itself to punch above its weight in the space sector through a combination of innovation, collaboration, and investment in education and technology. Although Bahrain's space sector is still in its developmental stages, it has

made significant strides since the establishment of the NSSA.

The sector focuses on various key areas, including satellite development, research and innovation in both upstream and downstream activities, education and outreach, and, most importantly, international collaboration. These partnerships have accelerated the realization of our ambitions in the space field, allowing us to learn from others rather than reinventing the wheel. They have also facilitated capacity building, technology localization, and the creation of a new space sector, serving as a tool to achieve national objectives such as Bahrain Vision 2030. On a global scale, this positions the kingdom among developed countries in the field of space while supporting our reporting on international commitments, such as the UN Sustainable Development Goals (SDGs).

To ensure the growth of the space sector, Bahrain will continue to strengthen partnerships and invest in space infrastructure, including the establishment of state-of-the-art facilities to support national satellite development, research, and testing. This will foster a robust space ecosystem, including advanced laboratories for processing and analysing imagery, which contribute to sustainable development. Bahrain will also announce relevant policies to regulate space activities, stimulate the private sector and encourage local start-ups and entrepreneurs in the space tech sector through incubators and funding opportunities, fostering innovation and creating new business avenues.

Looking ahead, Bahrain envisions a vibrant space sector that contributes not only to national development but also to regional advancements in space technology. Additionally, it aims to contribute to global space exploration efforts and address global challenges such as climate change, disaster management, and sustainable development through satellite technologies and applications.

Q How are you engaging with the next generation – school pupils and university students – to encourage an interest in space and space careers?

The NSSA engages with the next generation in various impactful ways to spark interest in space, encouraging students to pursue higher education and careers in the field. This approach aims to stimulate innovation and foster research and entrepreneurship, ultimately nourishing the space sector.

One of the key initiatives is securing postgraduate scholarship opportunities at esteemed institutions in space-related disciplines and offering internship opportunities for university students. These internships allow students to work on real projects alongside experienced professionals, enhancing their 21st-century skills while providing valuable insights into various career paths within the space industry.

Additionally, the NSSA organises space camps and outreach events, including visits to schools and universities. These activities feature guest speakers and interactive



Bahrain envisions its space sector contributing significantly to national development

presentations, demonstrations, and activities designed to engage students and ignite their curiosity about space.

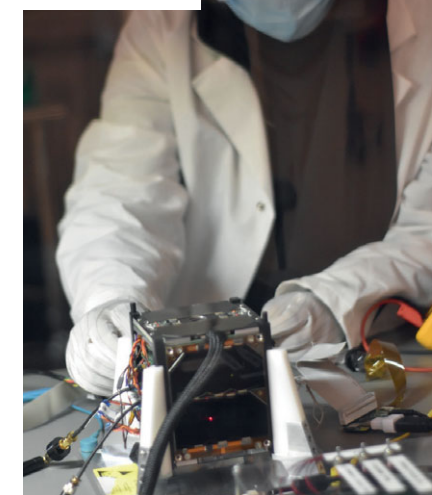
The agency also hosts competitions, such as the annual Space Apps Hackathon in collaboration with NASA. This event encourages students to innovate and apply their knowledge in practical scenarios, further stimulating interest in space exploration.

To promote teamwork and problem-solving skills, the NSSA introduces STEM programmes in schools, which provide a framework for students to engage with space-related challenges. Furthermore, the NSSA collaborates with universities on joint research and graduation projects, creating opportunities for students to participate in meaningful research initiatives.

Q How are you cooperating with other agencies in the GCC and the wider world?

The NSSA has forged strong partnerships with the Kingdom of Saudi Arabia and the UAE since its inception, and most recently, it has expanded its collaboration with

One of the roles of the NSSA is to foster talent, says Al-Aseeri



Oman. As a member of the Arab Space Cooperation Group (ASCG), Bahrain aims to enhance cooperation with the Arab nations in space exploration and technology. These partnerships have yielded many fruitful outcomes that underscore the NSSA's commitment to advancing its national space agenda.

During its establishment phase, the NSSA drew heavily on the expertise and experiences of both the KSA and UAE. This collaboration was instrumental in defining Bahrain's national space policy, establishing the agency, and setting up recruitment criteria and selection processes. The partnerships also played a crucial role in revising the NSSA's strategic plans and technical specifications for space missions. Furthermore, the drafting of the national space law and initiatives in space education and outreach benefited significantly from this collaborative effort. Additionally, with the lack of facilities, the agency relies significantly on counterparts' infrastructure for the assembly, integration and testing of satellite components.

I have already outlined some of the programmes where we are collaborating or have collaborated with other GCC nations.

Q Do you think the formation of a GCC space agency – along the lines of the European Space Agency – is a realistic prospect?

Yes, I think the formation of a GCC space agency is a realistic prospect.

Realising the importance of regional dialogue, the Arab Space Cooperation Group (ASCG), a collaboration initiative launched by the UAE, was established in 2019. The ASCG seeks to unify efforts and resources to advance the Arab space sector and enhance regional capabilities.

However, establishing a GCC space agency is necessary for achieving regional focus on the GCC six member states, allowing for more tailored initiatives and projects that address the unique needs and

priorities of the Gulf region. For example, the GCC agency could prioritise specific projects that enhance regional security, economic development, and technological advancement, such as joint satellite programs or space infrastructure tailored for GCC needs.

Overall, while both entities aim to enhance space capabilities in the region, a GCC space agency would focus more narrowly on the specific needs and goals of Gulf nations, potentially leading to more cohesive and strategic advancements in space technology and exploration within that context.

Q Finally, what is the focus of NSSA at the show this week?

The NSSA is showcasing the Kingdom of Bahrain's advancements in space over the past decade including our successful partnerships with regional and international space organisations.

NSSA's aim is to engage in discussions about future initiatives in space research, education, policy, technology, and innovation with professionals, researchers, and industry leaders. NSSA is eager to explore collaboration opportunities with the global space community on joint research, projects, and capacity-building efforts.

Additionally, Bahrain is hosting the second space forum on the sidelines of BIAS, providing a platform for the exchange of ideas, innovations, and best practices. This will enable participants to learn about the latest advancements in space technology and applications, particularly in relation to the UN sustainable development goals in the Middle East and both national and international space law.

The public area of BIAS will feature numerous space-related events designed to engage the public and inspire potential future space professionals, fostering interest in STEM fields and encouraging the next generation to pursue careers in science and technology. ■



Lounging in luxury

Jet set: The fountain outside the 1961-built terminal

Murdo Morrison

Fancy being transported back to the era of the original upper-class jetsetters, where you can almost imagine Frank Sinatra, Grace Kelly or perhaps the Duke and Duchess of Windsor stepping through the door? Bahrain Airport Company (BAC) has converted its original airport building dating from 1961 into a sumptuous private terminal that combines retro style and luxury with Arabic hospitality.

But you do not have to be a VIP or high-flying executive – or even a private jet passenger – to enjoy the tastefully remodelled establishment. The Awal Private Terminal – operated by premium hospitality

service provider Hala Bahrain – is available to commercial airline passengers, even those travelling in economy, for BHD100 (\$265), or BHD150 per person for a private lounge.

The price includes exclusive security and customs and a chauffeur service to your aircraft.

Refurbishment of the two-storey building, which had been used as the headquarters of Bahrain's civil aviation authority, began in 2021 as part of BAC's airport modernisation, which saw the 1970s successor to the original terminal itself knocked down and replaced by the current much larger passenger facility. However, until now, marketing of the Awal Private Terminal has been low-key.

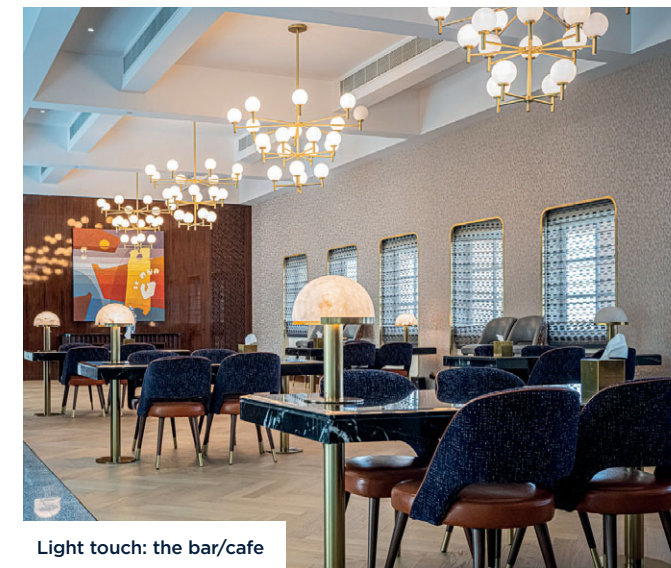
The six private lounges, around a

large central atrium lounge, all have their own theme or style of décor. They include a cigar lounge. Behind the atrium is a café/bar area, and there is a courtyard with a pond for those who prefer to smoke outside. There is also a prayer room and duty-free shop.

When we visited in early October – with *Flight Daily News* photographer Tom Gordon of BillyPix taking a tour with his camera – the terminal was quiet. However, this year has seen two flurries of activity for the facility.

A total of 178 private jets landed at Bahrain for March's Formula 1 Grand Prix.

In May there were 120 head of state and other VIP aircraft for the 33rd Arab Summit, which the kingdom hosted. ■



Light touch: the bar/café



Art of the matter: a Mondrian-inspired design on a cabinet; each lounge has its own style



Glass act: Roof panels let in plenty light



Reserved: one of the private lounges



Roomy: the spacious main lounge



Cabinet of curiosity: a retro piece of furniture



Sofa so good: the attention to detail is impressive

While Bahrain has its share of excellent restaurants and shopping malls, you might want to sample some of the country’s more diverse cultural, sporting and historic attractions during your visit to the kingdom

Time for a change

Murdo Morrison

1 Bab Al Bahrain and old Manama
For a very different Manama to the high-rises, hotels and highways wander into the original city centre, a maze of souks, small shops and independent cafes and eateries. With some exceptions there is not much to wonder at architecturally, but the colours and aromas mean a two-hour stroll is time well spent.

One of the most impressive structures, and worth a visit in its own right, is the Bab Al Bahrain (meaning gateway of Bahrain). Constructed in 1949, and opposite the entrance to one of the souks, it once housed the country’s civil service and overlooked the sea, before land reclamation and the building of the King Faisal Highway pushed it inland.

The building had become run down but a refurbishment in the 1980s saw it transformed into a market with cafes, shops and the tourist information bureau. A few minutes’ walk from Bab Al Bahrain is the Gold City mall, a collection of jewelers specialising in gold.

2 Pearl diving
Bahrain has been famous for its pearls since the time of the classical empires – the Roman historian Pliny mentioned Tylos (the Greek name for Bahrain) as being famous for its numbers of pearls. While the discovery of oil meant the practice declined after the Second World War, pearl diving and trading remains central to the kingdom’s culture.

Several operators offer the chance to go snorkeling with specialist divers in search of oysters that may contain the precious minerals. Whether you are experienced in diving or a beginner, companies will come up with an experience that is right for you. The water is warm and you get a chance to open your oysters on the boat on your return, with experts on hand to appraise your find for value and quality.

3 Merchant houses of Muharraq
You may know Muharraq as the site of Bahrain’s international airport but take a walk behind the highway that sweeps round the edge of the island and you will find a labyrinth of old streets, some containing old Bahraini merchant houses that have been restored. They include the Sheikh Isa bin Ali house that features courtyards, carved doors and perforated gypsum panels and the Bin Matar house, which has a display of Bahrain’s pearling



Tree of Life

Vladimir Zhoga/Shutterstock



Merchant house of Muharraq

Kirk Fisher/Shutterstock



Pearl diving

Joerg Dreischer/Shutterstock



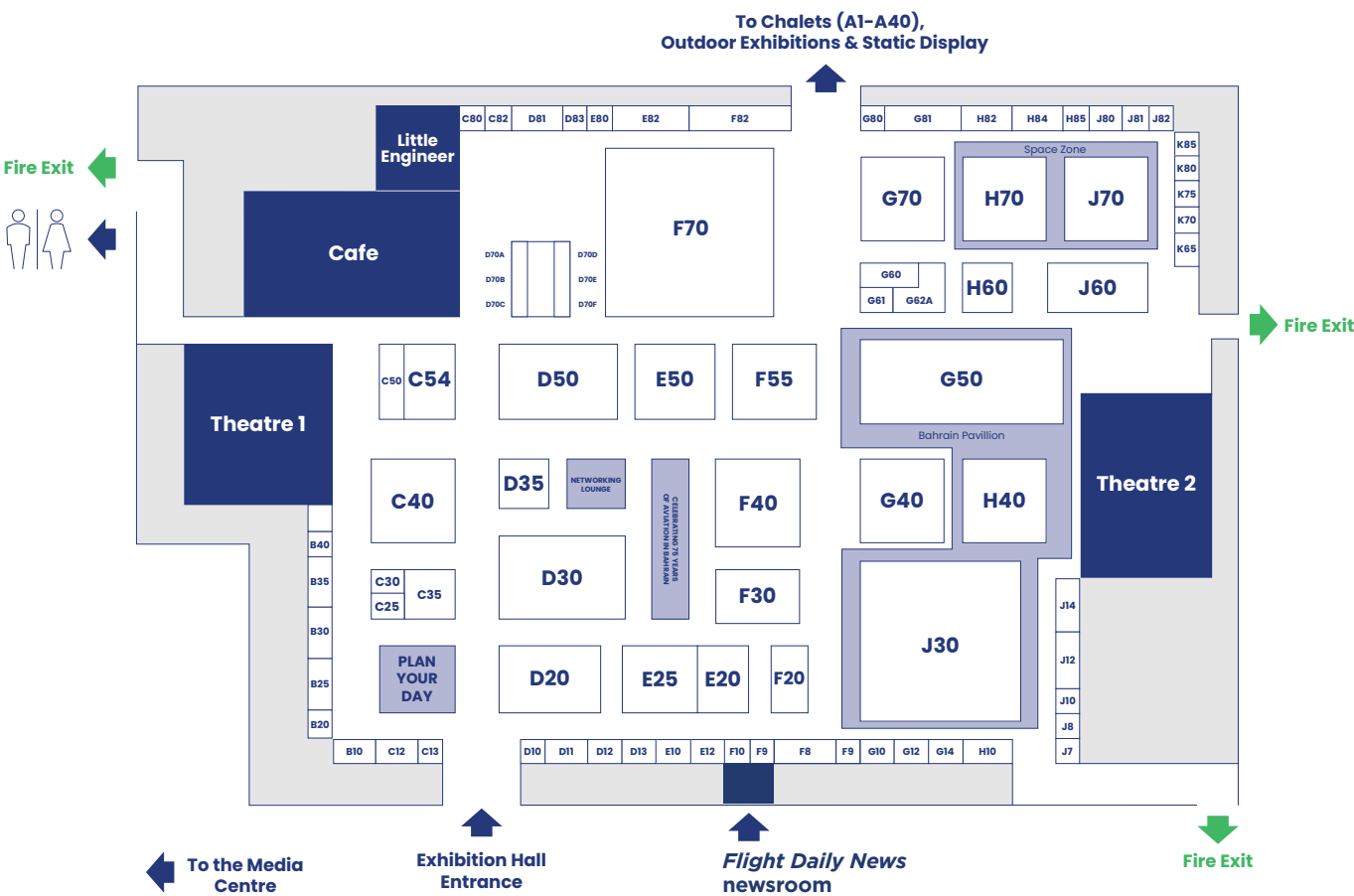
Bab Al Bahrain and old Manama

Priya Suresh/Shutterstock

4 Tree of Life
Half-way down the main island of Bahrain, a 25min drive from Manama, is a sight that astonishes most visitors. On top of a sand dune, with no vegetation or water for kilometres around, sits a 10m-high wide-branched tree. The prosopis cineraria tree is over 400 years old and is known as the Tree of Life for its

seeming ability to thrive in the arid conditions, as well as a reference to the myth that where it stands was once part of the Biblical Garden of Eden. The secret to its success might be 50m-deep roots that allow it to reach water. Another theory is that the tree has taught itself to absorb moisture from sand. It attracts 65,000 sightseers every year. ▶

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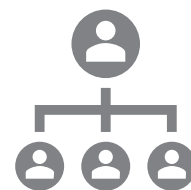
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