

Reporting on The Business of Business Aviation Since 1965

March 22, 2024

**Inside**

**PROGRAMS**

Leonardo Grows AW09 Test Fleet,  
Targets 2025 Market Entry..... **PAGE 3**

**TRAINING**

Skyborne Adds 20 Additional Pilot  
100is To Training Fleet..... **PAGE 3**

**SOUNDING BOARD**

Five Minutes With Sirius Aviation  
Founder And CEO Alexey Popov..... **PAGE 4**

**AIRPORTS**

Intracuity UAM Flights At Least  
Decade Away, UK Panel Says..... **PAGE 6**

**OPERATIONS**

Olympic Opening Ceremony To  
Completely Close Paris Airspace..... **PAGE 5**

Spanish Companies Pick Smallsat  
For Space-Based ATM Test..... **PAGE 6**

Study Assesses Willingness  
To Fly On eVTOLs..... **PAGE 7**

NASA To Test Response  
Of Public To eVTOL Noise..... **PAGE 7**

**MORE**

Briefs, ADs, Appointments  
And Calendar..... **PAGES 10-12**

**Intelligence**

California Aeronautical University has placed an order for 15 Cessna Skyhawk aircraft with Textron Aviation for the school's flight training fleet with deliveries to begin in 2027. The aircraft will be used at CAU locations including San Diego, Bakersfield and Ventura, California and in Mesa, Arizona. Its current fleet includes Cessna Skyhawks, Beechcraft Barons and Robinson helicopters. According to CAU, the additional aircraft will help the school maintain an optimal student-to-aircraft ratio.

REGULATORY/LEGISLATIVE

**UK Lawmakers Call For Urgent EGNOS Restart**

ANGUS BATEY, [angus@angusbatey.co.uk](mailto:angus@angusbatey.co.uk)

**LONDON—The leaders of the largest group of British parliamentarians have written to the UK's aviation minister urging swift action to restore the country's access to EGNOS (European Geostationary Navigation Overlay Service).**

EGNOS, which is similar to the U.S.'s WAAS (Wide Area Augmentation System), provides LPV (localizer performance with vertical guidance) approaches at smaller airports. More than 40 such approaches were in use at 18 British airfields until late June 2021, when access to the system's Safety Of Life service ended. This was a consequence of the terms of the agreement struck by the UK government following the 2016 referendum in which the country voted to leave the European Union.

The system has little relevance for large hub airports, where precision approaches are provided via ILS (instrument landing system) technology. But for general aviation traffic using regional UK airports, the loss of EGNOS is causing significant challenges. Non-ILS approaches during periods of low cloud or other poor weather conditions may be impossible, including for emergency and medical flights. Aside from the economic and ecological impacts of canceled or re-routed aircraft, the loss of access to EGNOS may

EGNOS, P. 2

SUPPLIERS

**Embraer Posts Highest Bizjet Deliveries In Seven Years Despite Supply Woes**

MOLLY MCMILLIN, [molly.mcmillin@aviationweek.com](mailto:molly.mcmillin@aviationweek.com)

**Embraer's business jet division "continued its positive sales momentum" during 2023 with strong support in its retail and fleet markets, the company says.**

The Brazil-based company delivered 115 business jets for the full year in 2023, compared to 102 in the previous year, and its largest volume in seven years, officials say. In the fourth quarter of 2023, it delivered 49 executive jets, including 30 light and 19 midsize aircraft, compared to 50 during the same period a year ago.

Supply chain issues continued to impact deliveries, although the situation improved in 2023 when compared to 2022, officials say. The company expects the challenges to continue to improve in 2024, while noting that "bottlenecks" remain.

For 2024, Embraer projects business jet deliveries to increase to a total of 125 to 135 shipments.

Revenue in Embraer's executive aviation division totaled \$1.41 billion in 2023, up 13% from the previous year on higher volumes. The company's sales performance is doing well, J.P. Morgan analysts said in a note to investors. The division posted a book-to-bill

EMBRAER, P. 2

**EGNOS, From P. 1**

potentially lead to loss of life.

"I live in the Isles of Scilly half the time, so I'm relying on a ship in the summer, and fixed-wing Twin Otters and/or a helicopter all year round, and the weather there tends to be [wet] with low cloud," Lord Tony Berkeley, vice chair of the All Party Parliamentary Group for Aviation (APPGA), told attendees of the British Business and General Aviation (BBGA) conference here March 7.

"Apart from the interruption of people's journeys, the health effect of not being able to get to a hospital or to a consultant is quite severe. It's very important for the economy of the country and for small airports' training and safety."

Lord Berkeley is co-signatory of a letter the 150-member APPGA sent to aviation minister Anthony Browne on March 5, along with APPGA chair (and former aviation minister) Kelly Tolhurst, and Angus MacNeil, MP for the constituency of Na h-Eileanan an Iar, which consists of the Outer Hebrides islands to the northwest of the Scottish mainland.

In it, the parliamentarians argue that "re-joining EGNOS is not simply a matter of practicality but also a fundamental commitment to safety, economic efficiency, and international competitiveness," and that "regional airports cannot wait any longer for ... alternatives to be developed."

Shortly before the June 2021 withdrawal of access, the then transport secretary, Grant Shapps, told a pilots' association that the decision was taken for cost-related reasons and that the UK Space Agency was one of the entities involved in delivering a replacement service. But the APPGA's letter to Browne bemoans a "lack of progress in delivering an alternative" and recommends conducting and publishing a cost-benefit analysis of both re-joining EGNOS and continuing to not provide the service.

"I was in touch with the European Commission, and they said, 'We'd love you to [re-] join. All it needs is a switch-on and £35

million [\$44.8 million] for five years' subscription,'" Lord Berkeley says. "£35 million in government terms is absolutely peanuts."

Paul Fraser-Bennison, director of Merlin Aerospace Consulting, was a policy specialist with the UK's Civil Aviation Authority in the 2000s when the first EGNOS approaches were designed and implemented. He told the conference that re-joining EGNOS would likely cause some bandwidth problems for the CAA but

ought to be achievable in a relatively short time frame.

"There's the technicalities of reintroducing something that was already there, and then there is the machinery to make it happen," he says. "For those airports that previously notified an LPV ... and have still got those approaches from a satellite-based system with only 2D, the main thing would be to go through a safety management process of change to reintroduce."

Fraser-Bennison suggests that, if a decision to re-join was made by the end

of June, it "would be entirely possible through the normal processes" for airfields that had previously had LPV approaches to reactivate them by the end of the year. But, he cautions, the CAA will likely struggle to process applications if they receive restart requests for all 40-plus LPV approaches at once.

A future satellite-based augmentation capability appears to be the government's preferred solution. However, details on this plan is scant, and since it would likely rely on spacecraft yet to be built, it will take time and will carry a high price. The sole barrier to reactivating EGNOS, Lord Berkeley argues, is not technical or financial, but simply a question of political will.

"It's up there. It's working. It's working in the whole of Europe," he says. "Why not switch it on, and call it temporary to save your face? I think it's mostly political face that needs saving. Leave it on, and when something else is developed by whoever ... then you can have a transition period. But the thing is to get started now with something that we know works."

**EGNOS, which is similar to the U.S.'s WAAS (Wide Area Augmentation System), provides LPV (localizer performance with vertical guidance) approaches at smaller airports. More than 40 such approaches were in use at 18 British airfields until late June 2021, when access to the system's Safety Of Life service ended.**

**EMBRAER, From P. 1**

of above 1.3, or 1.3 orders for each delivery, "with a strong profitable backlog of \$4.3 billion, up \$400 million from a year ago," officials said in a call with analysts on its financial results.

Overall, the mix of orders "is healthy with 33% from corporate [customers], 33% from fractional companies and 33% from individuals," J.P. Morgan analysts say.

In 2024, about 55% of the executive jet deliveries are expected to be in the company's light jet offerings with 45% midsize jets.

"Overall, there is more competition on mid-size than light-size jets," J.P. Morgan analysts note.

Companywide, Embraer recorded 2023 revenue of \$5.27 billion, up 16% from 2022.

## PROGRAMS

## Leonardo Grows AW09 Test Fleet, Targets 2025 Market Entry

TONY OSBORNE, [tony.osborne@aviationweek.com](mailto:tony.osborne@aviationweek.com)

**ANAHEIM, California—With the first flight of a fifth prototype of its AW09 single-engine light helicopter, Leonardo Helicopters is hoping to finally bring the aircraft to market in 2025.**

Fully representative of the final configuration, aircraft PS5—which flew for the first time on Feb. 25—has joined sistership, PS4 in support of the certification flight test campaign to meet the European Union Aviation Safety Agency's (EASA) CS-27 Small Rotorcraft requirements.

Leonardo Helicopters—which bought the program through its acquisition of Kopter Group in 2020—is confident that the 2.5 metric ton-class aircraft, which was first developed as the Marengo Swisshelicopter SKYe SH09 back in 2011 could now reach launch customers in 2025.

"We are now in a solid phase," Guglielmo Monguzzi, head of programs at Kopter Group told Aerospace Daily at the HAI Heli-Expo industry gathering here on Feb. 28.

"We now have two workhorses able to carry out the flight test campaign and the certification flight test campaign and required by EASA," Monguzzi added.

Unlike earlier prototypes, PS5 was built at Leonardo's production facility in Vergiate near Milan, Italy rather than Kopter Group's facilities in Mollis, Switzerland, supporting the efforts of the Vergiate engineers to prepare to build production examples.

A production aircraft, S6 will also be used to support certification testing, as the EASA rules demand trials on a production standard aircraft, including function, reliability, and electromagnetic interference, Monguzzi said.

An earlier test aircraft, P3 which had supported initial flight testing of the design, has been retired, given how different the

aircraft was to production models. "We think of it [P3] as probably closer to a technological demonstrator," Monguzzi said.

Preparation for production in Italy is well underway, with Monguzzi stating that much of the non-recurring activities final assembly including the preparation of job cards and tooling had been made ready.

Leonardo has made significant changes to the design of the aircraft since it took over the program, including changing out the engine from Honeywell's HTS900 to Safran's Arriel 2.

The OEM had concluded that the Safran engine has better global support options for the AW09's operators.

Other changes have included new composite main rotor blades, and adjustments to the aerodynamics of the upper fuselage and the vertical stabilizer. These are in addition to the introduction of the Garmin G3000H avionics suite which was added by Kopter Group.

One area that was untouched however was the original cabin space, said Monguzzi, which is a key selling point of the aircraft and particularly appealing to operators in the aerial tourism and emergency medical service sectors.

U.S. operator and service provider Metro Aviation, who signed up to be a distributor of the AW09 during Heli-Expo, has suggested that the aircraft could take market share away from twin-engine types such as Airbus H135 and Bell's 429 because of the cabin size and potentially lower operating costs because of the single engine. Metro Aviation has already developed EMS and aerial tourism cabin configurations for the aircraft that could be offered as Supplemental Type Certificate (STC) kits.

As part of their role as distributor, Metro also committed to purchasing up to 30 aircraft, while UK-based operator and distributor, Sloane signed a deal for a further nine AW09s.

These are in addition to the 100 preliminary sales contracts

LEONARDO, P. 9

## TRAINING

## Skyborne Adds 20 Additional Pilot 100is To Training Fleet

MOLLY MCMILLIN, [molly.mcmillin@aviationweek.com](mailto:molly.mcmillin@aviationweek.com)

**Skyborne Airline Academy flight school in Vero Beach, Florida, has signed an \$8 million contract for 20 additional Piper Pilot 100i aircraft, with deliveries to begin in 2024.**

The contract follows an initial order for 11 new Pilot 100is. Deliveries began in November 2023 as part of a multiyear fleet agreement, the company says.

Skyborne's fleet includes 50 Piper Aircraft single and multi-en-

gine aircraft. The company also trains students on three Redbird simulators. Piper Aircraft is also based in Vero Beach.

"Over the last three years, Skyborne's U.S. footprint has grown exponentially as demand for airline-focused pilot training continues to rise," Skyborne CEO Lee Woodward says. "A partner and ally from the beginning, Piper has been crucial to helping us meet this need."

Skyborne offers full-time career development courses through its FAA Part 141 programs. It also has partnered with Delta Air Lines to offer a Propel Flight Academy to train pilots for future first officer positions with Delta.

## Sounding Board

### Five Minutes With Sirius Aviation Founder And CEO Alexey Popov

ANGUS BATEY, [angus@angusbatey.co.uk](mailto:angus@angusbatey.co.uk)

There are people for whom aviation is a calling, and others who would argue it's in their blood: and then there's Alexey Popov. His father and brother are senior executives in what he refers to as "the family business"—FED, the Ukrainian aerospace components, systems and maintenance firm that can trace its history back almost 100 years—and, like them, he graduated from the National Aerospace University's Kharkiv Aviation Institute, alma mater to the lion's share of Ukraine's degree-educated aerospace engineers. As a pilot, Popov has flown single-handed across the Atlantic—a six-day jaunt that was effectively the ferry flight for a Cirrus SR22 G2 he bought in Portland in 2020. After nearly 20 years in various roles within FED, he established Sirius Aviation in 2021. The Swiss-based company, funded by FED, is developing a liquid-hydrogen-powered electric vertical-take-off-and-landing (eVTOL) business jet in collaboration with partners including German auto giant BMW's Designworks studio, Formula 1 team Sauber, and Leonardo Aerostructures.

**Q: Why, with all your experience, did you feel that entering the eVTOL market was the right move?**

**A:** Very simple. We always seek out opportunities, like any other growing company. We clearly understand we can do it. The only thing that we were lacking in terms of technologies was the fuel cell performance—all the other technologies we've just reshuffled. It has wings; it has a fuselage, but we distribute thrust from multiple spots. There was nothing new. But the propulsion system, we have designed it completely, and we hold the patent for that hydrogen-electric ducted fan propulsion system, registered in the United States last year. This is the only thing we will have to certify as a novel design, but it has to be done by someone sooner or later, right? The hydrogen engine: humanity needs it right now. So, to answer your question in a very brief way—we felt this passion; we felt that, yes, we can do it; and we are doing it.

**Q: Your design, with 28 tilting ducted-fan engines mounted along the wings and canards, resembles the Lilium Jet. Lilium**

**is one of a handful of eVTOL developers who have pivoted to target the business-aviation market first. What advantages do you believe you have by deciding to focus on that segment from the outset?**

**A:** Firstly, we don't want to compete in a red ocean. In the book *Blue Ocean Strategy*, Renee Mauborgne and W. Chan Kim explain that the red ocean is the overheated market, and the blue ocean is an empty market. You can create blue oceans or you can participate in red oceans. Maybe this is part of my character, but I've never wanted to be like others. It's not that I cannot compete with others—I can. But why? For what? If you can create your own market.

So, we're creating our own market—regional hydrogen flight, with sustainable technologies and zero carbon emissions. Lilium and eVTOLs—purely electric—those will be hopping plates. They will never fly more than one hour, because their batteries are discharged quickly. You consume 30% of the power capacity of your battery to take off; then for Lilium, which is a bad thing, they will consume the same for landing vertically. So, you have 40% left, but you have to supply power to all your computers, avionics, whatever, and the cooling system consumes a lot. So, that's more and more mass. [Other eVTOL OEMs] have already been banned—not too many people know; I know—from vertical take-off. They are not in this market anymore. They are conventional aircraft, with batteries. We will do the vertical take-off and landing since we have hydrogen. We have a lot of energy on board. We can consume, transform and receive energy for everything.

And why did we go to the business market? I like the business market! You have different people and different problems. But there is commercial logic to this. For the first couple of years, we will not be able to produce more than 100 aircraft, so you have to sell each seat with lower margin, right? We will sell them with the highest possible margin. It makes a lot of

SOUNDING BOARD, P. 8



Photo: Sirius Aviation

Sounding Board is an intermittent column that features leaders of the business aviation industry.

**Staff**

**EDITORIAL**

2121 K Street NW, Suite 210, Washington, DC 20037  
Tel: +1-202-517-1100, [awin.aviationweek.com](mailto:awin.aviationweek.com)

**U.S. EDITORIAL STAFF**

**Editor-In-Chief** Molly McMillin  
**Copy Editor** Natalia Pelayo  
**Associate Producers**, Heidi Carcella,  
Donna Thomas-High  
**Contributing Editors** Michael Bruno, Bill Carey,  
Matthew Orloff, Tony Osborne, Graham Warwick

**DATA & ANALYTICS**

**Senior Director, Forecasts and Aerospace Insights**  
Brian Kough  
**Director, Data Operations and Solution**, Terra Deskins  
**Commercial Aviation Analyst** Antoine Fafard  
**Senior Fleet/Forecast Engineer/Analysts**  
Nigel Howarth, Nigel Prevet

**SUBSCRIBER SERVICES**

Customer Service, New/Renewal Sales  
The Weekly of Business Aviation,  
22701 W 68th, Ste 100, Shawnee, KS 66226-9806  
Tel: +1-877-369-3706 (within the U.S.)  
Tel: +1-913-850-6930 (outside the U.S.)  
Fax: +1-800-455-3145  
Email: [tech\\_assistance@aviationweek.com](mailto:tech_assistance@aviationweek.com)

**INTELLIGENCE AND DATA SERVICES**

**Senior VP, Intelligence, Data and Media** Anne McMahon  
Tel: +1-646-469-1564,  
[anne.mcmahon@aviationweek.com](mailto:anne.mcmahon@aviationweek.com)

**Senior Director, Intelligence and Data**, Matt Holdreith,  
Tel: +1-917-703-0920,  
[matt.holdreith@aviationweek.com](mailto:matt.holdreith@aviationweek.com)

Discounted rates for multiple users and enterprise access available. Custom packages and additional services available including Intelligence/Research, Fleet Data, Forecasts

**User Engagement** Melissa Crum, Tel: +1-913-284-2951  
[melissa.crum@aviationweek.com](mailto:melissa.crum@aviationweek.com)

Online Access To The Weekly of Business Aviation  
Subscribers can access the current issue and archive at [awin.aviationweek.com](http://awin.aviationweek.com)

**ADVERTISING**

**Sales Director** Melissa Crum  
Tel: 913-284-2951, [melissa.crum@aviationweek.com](mailto:melissa.crum@aviationweek.com)

**REPRINTS**

Wright's Media  
Tel: 1-877-652-5295 (within U.S.)  
1-281-419-5725 (outside U.S.),  
[informa@wrightsmedia.com](mailto:informa@wrightsmedia.com)

Published weekly by Aviation Week, 2121 K Street NW, Suite 210, Washington, DC 20037 (ISSN No. 0509-9528). Gregory Hamilton President, Aviation Week.

COPYRIGHT © 2024 by Informa. All rights reserved. None of the content of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) without the prior written permission of the publisher. Available in online and E-mail editions.

Vol. 109 • No. 12



OPERATIONS

**Olympic Opening Ceremony To Completely Close Paris Airspace**

HELEN MASSY-BERESFORD, [helen.massy-beresford@aviationweek.co.uk](mailto:helen.massy-beresford@aviationweek.co.uk)

**PARIS—Airspace in a 150 km (93 mi) radius around Paris will shut completely for the opening ceremony of the 2024 Olympic Games July 26, and will involve a five-hour shutdown of traffic at the two major Paris airports Charles de Gaulle and Orly.**

“It’s quite historic to be completely shutting airports,” French interior minister Gerald Darmanin said, as he detailed plans for the event at a March 5 Senate hearing.

**Paris’s two main airports—Charles de Gaulle north of the city and the smaller Orly to the south—are affected, as well as Le Bourget, and Beauvais Airport.**

The July 26 shutdown is planned to begin at 7:00 p.m. local time and continue until the end of the ceremony at midnight.

Paris’s two main airports—Charles de Gaulle north of the city and the smaller Orly to the south—are affect-

ed, as well as business aviation-focused Le Bourget, located 7 km north of Paris, and LCC-centric Beauvais Airport, which is about 85 km northwest of central Paris.

“Teams and heads of state will have to arrive outside this zone [or in advance],” said Darmanin, giving Lille airport in northern France as an example.

As part of security plans, helicopters and drones will be overflying the ceremony, which is taking place along Paris’s River Seine and includes a 6 km long parade of 160 boats set to be watched by around 326,000 spectators along the banks of the river.

COHOR, the body responsible for allocating slots at Paris’s airports, said overflights would also be impacted by the no-fly zone for the ceremony, without giving further details.

Airlines operating out of Paris airports are preparing for the operational challenges of the event, which runs from July 26 to Aug. 11 for the Olympics and from Aug. 28 to Sept. 8 for the Paralympics.

COHOR has set out a specific slot coordination process for the games’ duration for some of France’s airports where there could be cancellations or changes to regular slot patterns because of the games.

Airports listed as likely to be impacted by the coordination process are Bordeaux Merignac Airport (BOD), Beauvais-Tillé Airport (BVA), Paris Charles de Gaulle Airport (CDG), Lille-Lesquin Airport (LIL), Paris Le Bourget Airport (LBG), Paris Orly Airport (ORY), and Marseille Provence Airport (MRS).

Airlines are not expecting the event to have a major impact on travel demand over the summer season, which is expected to be strong.

At Air France-KLM’s results presentation Feb. 29, CEO Ben Smith said,

“The fleets of both airlines (Air France and KLM) are always flying at full capacity in the summer.

Prices will go up, [and] there’ll be more tension but based on other events that have taken place in Paris, we’ll see a slight uptick because business traffic does go down. There are some imbalances that have to be worked out.”

## AIRPORTS

## Intracity UAM Flights At Least Decade Away, UK Panel Says

ANGUS BATEY, [angus@angusbatey.co.uk](mailto:angus@angusbatey.co.uk)

**LONDON—Even if a handful of electric vertical-take-off-and-landing (eVTOL) aircraft developers achieve their ambitious certification and delivery goals, integrating the first aircraft into today's urban airspace environments is going to be a huge challenge.**

During a March 7 panel session at the British Business and General Aviation Association's (BBGA) annual conference here, some important notes of realism were injected into the air taxi sector's upbeat mood music. The long-term aspirations of OEMs may one day be realized, speakers suggested, but the path that has to be traveled between today's urban air mobility (UAM) operations and the end state desired by eVTOL developers will be long and arduous.

"Today, we can't see how we can practically host conventional eVTOL-type operations," says James Dillon-Godfray, business development manager of London Oxford Airport, which owns

and operates London's sole full-use city-center heliport in Battersea. (The Vanguard heliport, on the Isle of Dogs, operated by vertiports developer Skyports, has more stringent restrictions placed on aircraft types that can use it, and the hours in which flights can take place.)

"If they knock on the door in a couple of years' time and wish to land, that's fine," Dillon-Godfray says. "But ... it's a case of drop-off and go. We don't want them hanging around. We don't have the elbow room to accommodate them [while] charging."

He said the Heliport also currently lacks sufficient electrical power to provide rapid recharging to eVTOLs. That may be a surmountable challenge in the short term, according to Jeremy Hartley, vertiports policy specialist for the Civil Aviation Authority (CAA), the UK regulator. He points to developers—currently targeting mainly the electric car market—that are producing mobile recharging vehicles which can produce electricity in any location from bioethanol and hydrogen.

"There are lots of companies looking into this," he says. "It would be a good starting solution, instead of trying to build all

UAM FLIGHTS, P. 9

## OPERATIONS

## Spanish Companies Pick Smallsat For Space-Based ATM Test

BILL CAREY, [bill.carey@aviationweek.com](mailto:bill.carey@aviationweek.com)

**Spanish companies will use a microsatellite built by Kongsberg NanoAvionics to test their planned space-based air traffic management (ATM) system, the companies said March 18.**

Startical, a company formed by Spanish state-owned air navigation service provider (ANSP) ENAIRE and ATM technology provider Indra, has selected NanoAvionics's MP42 microsatellite bus to assess the performance of its very-high frequency (VHF) radio communication and ADS-B surveillance systems in space, NanoAvionics said. The test satellite, weighing about 110 kg (242 lb.), will enter service in 2025 for a series of tests lasting six months.

A public-private joint venture, Startical is among companies readying space-based VHF systems following the allocation of new spectrum in the VHF band for provision of Aeronautical mobile satellite (route) services.

With a new VHF voice and data link connecting aircraft and satellites, ANSPs see an opportunity to safely reduce separations between airliners flying in oceanic and remote airspace, with corresponding benefits for efficiency, fuel consumption and emissions.

Startical plans to build an ATM constellation of 270 or more satellites, the release said.

"Our goal is to become the main global provider of air traffic management technology in the space segment and a market leader in satellite surveillance and voice and data communications services," Startical CEO J. Enrique González Laguna said. "Our constellation will call on highly innovative and distinctive technological solutions, including the incorporation of pioneering links between satellites and the use of artificial intelligence to make controlling them easier."

Lithuania-based NanoAvionics, a manufacturer of modular nanosatellite and microsatellite buses with operations in the U.S. and UK, will provide the bus, integrate the ATM payload, and launch the first mission operations for the Startical tests. Norwegian company Kongsberg Defense & Aerospace acquired a majority share of NanoAvionics in 2022.

"This is an excellent opportunity for us at NanoAvionics to become Startical's partner," CEO Žilvinas Kvedaravičius said. "We will bring our leadership and expertise in small satellite technology, which will be ideally complemented by Startical's advanced vision of air traffic management. We are committed to this mission and we will strive to demonstrate the capabilities and ongoing reliability of our small platform and mission services geared toward the customer."

## OPERATIONS

## Study Assesses Willingness To Fly On eVTOLs

GRAHAM WARWICK, [graham.warwick@aviationweek.com](mailto:graham.warwick@aviationweek.com)

**If you are male, married, middle-income and live in a city, it is a sunny day and your air taxi is a multicopter, you will be more willing to fly on an electric vertical-takeoff-and-landing (eVTOL) vehicle, concludes a study by the Washington State Department of Transport's Aviation Division.**

To explore consumer willingness to participate in advanced air mobility (AAM) by flying on eVTOL aircraft, an online survey of 975 individuals in the U.S. was conducted using an existing Willingness to Fly (WTF) scale designed to assess the acceptance of new aviation technologies and services.

Most respondents expressed interest in flying on an eVTOL but planned to wait a few months after service starts before participating in AAM. Overall, the most frequent responses were "agree" and "strongly agree" with being willing to fly on eVTOLs.

The survey offered four different eVTOL flight scenarios, from flight on clear, sunny day to flight in fog or rain. Not surprisingly, respondent willingness to fly decreased as weather or conditions deteriorated.

Images of specific eVTOL models were used to assess WTF on each aircraft type: Volocopter multicopter, Joby tiltprop, Lilium ducted-fan, Jaunt gyroplane and a generic tilt-duct design. Willingness to fly was highest for the Volocopter and lowest

for the Lilium. "The vehicle with the most unique type of powerplants resulted in the lowest reported WTF," study author David Ison says.

The study also analyzed the willingness to fly on eVTOLs across various demographic attributes. Results showed significant differences between genders, with males having a higher average WTF score. There was a weak negative correlation between WTF and age. Married respondents had the highest WTF, followed by single persons.

WTF varied significantly across types of employment, income and educational attainment, the study says. The highest scores were found in the \$50,000-\$75,000 range, with urban respondents having higher WTF than those in suburban and rural locations.

Safety and cost were the top two concerns among all levels of willingness to fly. The combination of employment status and marital status was found to be most correlated to WTF.

"By comprehending the inclination of consumers to travel in eVTOL aircraft, policymakers, manufacturers and stakeholders can garner valuable insights into market demand, consumer preferences, sustainable transportation and environmental considerations," the study says.

The study recommends public outreach and education to promote familiarity and passion among potential users. Recommendations for future research include repeating the study with an international sample and exploring willingness to pay for AAM services.

## OPERATIONS

## NASA To Test Response Of Public To eVTOL Noise

GRAHAM WARWICK, [graham.warwick@aviationweek.com](mailto:graham.warwick@aviationweek.com)

**NASA plans tests to measure whether there is a difference in the annoyance caused by noise from electric vertical-takeoff-and-landing (eVTOL) vehicles between people who live in noisy urban centers and those who live in quieter suburban areas.**

"The human response to noise from these vehicles needs to be better understood to help minimize the noise impact," NASA says in a March 15 Federal Register notice. The agency plans to use a remotely administered psychoacoustic test to acquire response to advanced air mobility (AAM) vehicle noise.

The Varied AAM Noise and Geographic Area Response Difference (Vanguard) test will use NASA's recently developed Remote Psychoacoustic Test Platform to test people in regions of the U.S. where AAM aircraft are likely to begin operations, such as

Los Angeles, Dallas, and New York City.

Test subjects will participate in an online application using their own computers and audio playback devices, such as headphones, to listen to calibrated sound stimuli.

The primary research objective of Vanguard is to determine if there are statistically significant differences in annoyance between subjects who live in low versus high ambient noise environments and if there is a difference between geographical regions.

"High" ambient noise environments are locations close to urban centers, while "low" noise environments are suburban areas along likely AAM flightpaths within 100 mi. of the urban center. NASA will identify the targeted regions based on noise survey data obtained by the National Park Service.

NASA plans to use the data gathered to test additional hypotheses, including whether annoyance responses differ significantly by phase of flight (takeoff, landing, and level cruise) and as a function of sound level based on distance from flight operation.

## **Sounding Board (Continued)**

SOUNDING BOARD, From P. 4

sense to blend cars and aircraft. I will try to blend them, and to eliminate people's perception between cars and aircraft. This will be a new, absolutely unseen product in the market. People will love it.

### **Q: What kind of timetable are you working toward?**

**A:** We are not in a hurry at all. We're not in competition with anyone. Our main competition is our diligence. We have to be diligent in what we do and do it in the most accurate and the right way.

The war [in Ukraine] mixed things up a little bit. We had to move the manufacturing, establish new certification. But it's not a big deal. Right now, we're building a new factory in Turkey, in the free economic zone: the legislation is British, and there's a port, so it's nice. And in Slovakia—we have an absolutely brilliant relationship with the Slovak University of Technology, and we've established a huge base, bought lots of equipment.

Right now, we're having an external independent technical audit by Israel Aerospace Industries, just to check that we didn't miss anything. That will be finished in around two months, then we will immediately deliver drawings to manufacturing. After six, seven months of manufacturing, and six more for tests, I believe that at the end of Q2 next year, maybe Q3 we will take off. As soon as we take off, two years and it will be certified. So, we expect the end of 2027, but just in case, I'm saying to everyone that the first deliveries will be in 2028.

### **Q: The success of the concept will rely to a very great extent on sufficient and wide availability of green hydrogen. How will you support your customers in ensuring they have access to fuel?**

**A:** A year ago, no one, not even myself, could answer this question in a precise way. For the last three years the hydrogen market simply didn't exist. Over those three years the technologies have been developed so high, and they're growing exponentially. And at Cop 28 in Dubai, humanity for the first time in history said 'Yes' to hydrogen. We were hesitating before, but today, yes. So, just imagine what will

happen in the next few years.

Today, I can offer you several solutions. If we had an aircraft ready I could offer you a hydrogen generator, a liquidator to make it liquid, and they are transportable. That already exists on the market, you can just go and buy one. But imagine what will happen in the next three to five years. We'll have multiple solutions for everything. And some genius people—technologists, engineers—will invent something new.

### **Q: Do you intend to sell the aircraft to operators, or will you operate them yourself on behalf of end-user customers, as several other eVTOL startups are proposing?**

**A:** My idea is to make this aircraft accessible, in terms of price, to as many people as possible. We have already partnered with [Swiss bank] UBS—throughout the life of the family business, we have been financed by UBS—with the yacht and private jet leasing department. We've created the idea that I don't even want to tell people the price, I want them to pay monthly. You choose your options, and maybe you pay 60K, 80K, or 100K—but this will be the maximum. So, there will be no price for the aircraft, probably. This accumulation of so many technologies is a priceless thing. It has to be so unique when you touch it, when you see it, when you smell it—and it has to have no price. That will be a breakthrough, from my perspective.

So, starting at 60K per month for five years, you get access to a lot of things. We will include 100% education for at least two people to go and be a pilot—already included in the price. There will be an option, if you don't want to do that, to have a pilot: you don't have to think about that, this is our problem. We will give you a 24-7 pilot service.

I want to grow a new generation of pilots, and I want to reach young people who have, more or less, just high net worth, not super-ultra-high net worth—those that have just a million in their pot. They will be able to buy my aircraft. UBS will finance it. I'm creating a package, together with UBS and BMW—and once we create this package, the aircraft has no price.

Sounding Board is an intermittent column that features leaders of the business aviation industry.

**AircraftBluebook**<sup>7</sup>

PRINT & DIGITAL SUBSCRIPTIONS | APPRAISAL SERVICES | DATA LICENSING

**TRUST**  
Know the Value



Visit [aircraftbluebook.com](https://aircraftbluebook.com)  
for more info.

**AVIATION WEEK**<sup>7</sup>  
NETWORK



**UAM FLIGHTS, From P. 6**

the infrastructure, dig up the ground, put the cables in from the get-go.”

But even then, Dillon-Godfray argues, the London Heliport’s ambition to be aircraft agnostic may fall down because of differing power interface requirements across different eVTOL OEMs.

“At the moment, most of the manufacturers have got different [charging] systems, and there’s no commonality between the charging requirements for the different products,” he says. The Heliport is “not going to spend a single penny on putting in a particular system where it’s only going to suit one of the OEMs,” he adds. “They need to get their act together and come up with a commonality of systems.”

While eVTOL developers can point to early acoustic signature test work to prove that their aircraft will be significantly quieter than conventional helicopters, noise will still be an issue in cities. It is already a challenge for established heliports, but for potential new sites even the perception that an aircraft generates unacceptable noise may end up postponing or canceling development.

“I think that is going to be the biggest battle for any new site,” says Tim Fauchon, CEO of the British Helicopter Association. “It’s bad enough with Battersea at the moment, keeping the local councils on side. The planning permission there was granted years ago. Vanguard and other places have tried putting barges

in the Thames and the local council have stopped it because the people who live nearby do not want this form of transport and do not want the noise that goes with it.”

The best way to answer the noise critics will be to carry out demonstration flights into and out of existing facilities. This means the London Heliport is likely to be in high demand as soon as eVTOL OEMs and operators have certified aircraft and wish to promote their use case concepts as a form of transportation for the London area. But even limited experimental use of the Heliport will be a challenge to deliver, Dillon-Godfray argues. He points to the lack of onboard power to enable eVTOLs to hold prior to landing, lack of clarity on how to handle battery fires, and insufficient space on the ground to allow for aircraft to sit while recharging, on top of the unanswered questions around recharging infrastructure.

“It doesn’t stack up at all as things stand today,” he says. “There are some big challenges, big problems, lots of unanswered questions. And the fact that we’re just one single site in the middle of London? Again, hopeless. You need more than one site. I know [Skyports] will do some tests and trials from [Vanguard], no doubt. But if you’re starting to think about any kind of commercial services, forget it at this point in time. You need far more suitable locations. We’ve got a long way to go. It’s not going to happen in 2026, 2027. Maybe in a decade’s time—maybe.”

**LEONARDO, From P. 3**

already signed by operators for the AW09.

Marengo, Kopter and now Leonardo all believe the AW09 will sell well. It is the first clean-sheet light helicopter design in around 50 years.

Prime target for the aircraft is Airbus’ H125 Ecureuil or AStar as it is known on the U.S. market, and the Bell 407.

The 407 is a more powerful derivative of Bell’s 1960s-era LongRanger, while the H125 was born from Aerospatiale’s AS350 which first flew in the 1970s. Both have been subjected to numerous iterative upgrades over the years including updated engines and new avionics.

Beyond production plans, Leonardo also sees the AW09 as a testbed for hybrid technologies, one to improve safety by providing electrical power to the rotor in the event of an engine failure so that the pilot can safely complete an autorotation landing.

Another option is to use the electric motor to boost performance during key phases of flight during takeoff or hover.

The company is exploring how to make such a hybrid system cost-effective enough to bring to market in a small helicopter.

Airbus is also exploring similar capabilities for its own flight helicopter portfolio.

AVIATION WEEK  
**MRO**  
AMERICAS

Aviation Week Network Brings  
MRO Americas to Chicago!  
April 9-11, 2024 • Chicago, IL

#MROAM

Learn more:  
[mroamericas.aviationweek.com](https://mroamericas.aviationweek.com)

## Business Aviation Briefs

**Sterling Aviation Services**, a corporate flight attendant management company, has joined the ARGUS certified training program, which recognizes organizations making contributions to safety in air charter operations. Sterling Aviation Services specializes in the training and management of corporate flight attendants, focusing on client service, confidentiality and safety, according to ARGUS.

**PWI** introduced its new LED cabin lighting system for the Cessna Citation Excel 560XL, replacing the aircraft's original fluorescent lighting. According to PWI, Citation Excel 560XL aircraft between serial numbers 5001 and 5349 will be able to take advantage of the lighting upgrade which reuses the original lighting wiring. The LED lighting utilizes familiar dimming controls and offers a 100,000-hr. service life, according to PWI.

**Tamarack Aerospace** presented its Eco-SMARTWING Solution for A320 aircraft at the 2024 Sustainable Aviation Cleantech Challenge in Denver. According to Tamarack, the innovation offers an 8-12% increase in fuel efficiency. The challenge, which selected 13 companies from a field of applicants, was organized by the Colorado Cleantech Industries Association (CCIA) to promote sustainable innovations in the aviation industry. Tamarack Aerospace's sustainable technology can be found on nearly 200 Cessna Citation Jets globally, which extends the aircraft's range by 33%, according to the company.

**AEROCOR** experienced a 20% increase in new Eclipse pilot training volume in 2023. Additionally, the company's training department saw a "steady demand throughout the year" for recurrent pilot training between owner-flown and contract pilot segments. According to AEROCOR, the company unveiled two new training options for potential students, including a Pinch Hitter companion course for non-pilots and an in-house Upset Recovery Training program.

**Haggan Aviation** announced its new status as a SmartSky inflight air-to-ground (ATG) sales and installation partner. The company, based in Colorado, provides maintenance, repair and overhaul (MRO) services, which will now include SmartSky next-generation ATG connectivity for business aircraft. Haggan Aviation is a certified FAA Part 145 repair station and offers "particular expertise" on Hawker and LearJet aircraft, the company says.

**Eve Air Mobility** announced the name of its Urban Air Traffic Management (Urban ATM) software as Vector. Eve Air Mobility describes Vector as an agnostic software solution designed to address current and future Advanced Air Mobility (AAM) challenges in air traffic and network management. According to the company, Vector will allow electric vertical-takeoff-and-landing (eVTOL) aircraft to integrate with other aircraft using low-level urban airspace. Eve is expecting the first deliveries and entry into service of eVTOL aircraft to occur as soon as 2026.

**True Blue Power** announced its newest TS28 Emergency Power Supply (EBPS) for a 28V electrical bus on Cessna Citation aircraft. The new power supply is a direct replacement for Radiant Battery Supply (CBS28-1) on Citation 550, 560, 650, 680, 680A and 700 aircraft. According to True Blue Power, the new power supply offers up to six years of battery pack life, a two-year capacity check, higher capacity and is field-replaceable.

**Garmin** announced an upcoming FAA Supplemental Type Certification (STC) for the Cessna Citation CJ2 for all-Garmin integrated avionics. According to Garmin, the company's avionics will replace legacy systems on the aircraft, "modernizing the airplane and reducing pilot workload by bringing new capabilities and safety-enhancing technologies." The complete retrofit includes Garmin's TXi flight displays, GTN Xi navigation, GFC 600 digital autopilot and other optional upgrades.

**Air Charter**<sup>7</sup>  
GUIDE

AVIATION WEEK NETWORK

Know Your Options

So many destinations.  
So many aircraft.  
One source: [airchartersguide.com](http://airchartersguide.com).

## Airworthiness Directives

**Bombardier, Inc., Airplanes** [Docket No. FAA-2023-2001; Project Identifier MCAI-2023-00666-T; Amendment 39-22676; AD 2024-03-06] The FAA is superseding Airworthiness Directive (AD) 2021-20-13, which applied to certain Bombardier, Inc., Model CL-600-2B16 (604 Variant) airplanes. AD 2021-20-13 required repetitive lubrication and repetitive detailed visual inspections (DVI) and non-destructive test (NDT) inspections of the main landing gear (MLG) shock strut lower pins, and replacement if necessary. This AD continues to require the lubrication and inspections specified in AD 2021-20-13 until the MLG shock strut assembly is modified by replacing the trailing arm bushing and installing new dynamic joint components. This AD was prompted by a new design solution for this potential failure of the shock strut lower pin. The FAA is issuing this AD to address the unsafe condition on these products. This AD is effective April 16, 2024. The FAA estimates that this AD affects 433 airplanes of U.S. registry. It estimates a cost of compliance for lubrication and inspections (retained actions from AD 2021-20-13) of \$595 per cycle per aircraft and a cost to U.S. operators of \$257,635 per cycle plus the cost of modification and testing (new actions) of \$3,200 per aircraft and a cost to U.S. operators of \$1,385,600. For more information contact Gabriel Kim, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone: 516-228-7300; email: 9-avs-nyaco-cos@faa.gov.

**GE Aviation Czech s.r.o.** (Type Certificate Previously Held by WALTER Engines a.s., Walter a.s., and MOTORLET a.s.) Engines [Docket No. FAA-2023-2149; Project Identifier MCAI-2023-00136-E; Amendment 39-22675; AD 2024-03-05] The FAA is superseding Airworthiness Directive (AD) 2022-13-16 for all GE Aviation Czech s.r.o. (GEAC) (type certificate previously held by WALTER Engines a.s., Walter a.s., and MOTORLET a.s.) Model M601D-11 engines; and AD 2022-14-12, for certain GEAC Model M601D-11, M601E-11, M601E-11A, M601E-11AS, M601E-11S, and M601F engines. AD 2022-13-16 required revising the airworthiness limitations section (ALS) of the existing engine maintenance manual (EMM) to incorporate a visual inspection of the centrifugal compressor case for cracks. AD 2022-14-12 required replacing the propeller shaft for Model M601F engines. AD 2022-14-12 also required calculating the accumulated life of the propeller shaft and replacing the propeller shaft, if necessary, for model M601D-11, M601E-11, M601E-11A, M601E-11AS, and M601E-11S engines. Since the FAA issued AD 2022-13-16 and AD 2022-14-12, the manufacturer revised the ALS of the existing EMM to introduce new and more restrictive tasks and limitations, expand the applicability to all Model M601 engines, and incorporate certain requirements addressed by AD 2021-13-07

and AD 2023-01-10, which prompted this AD. This AD requires revising the ALS of the existing EMM and the operator's existing approved engine maintenance or inspection program, as applicable, to incorporate new and more restrictive tasks and limitations, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products. This AD is effective April 17, 2024. The FAA estimates that this AD affects 42 engines installed on airplanes of U.S. registry. The FAA estimates the cost of compliance of \$85 per aircraft and a cost to U.S. operators of \$3,570. For more information contact Barbara Caufield, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone: 781-238-7146; email: barbara.caufield@faa.gov.

**Pratt & Whitney Canada Corp. Engines** [Docket No. FAA-2024-0458; Project Identifier MCAI-2024-00116-E; Amendment 39-22694; AD 2024-04-51] The FAA is adopting a new airworthiness directive (AD) for all Pratt & Whitney Canada Corp. (P&WC) Model PT6A-64, PT6A-66, PT6A-66A, PT6A-66B, PT6A-66D, PT6A-67, PT6A-67A, PT6A-67AF, PT6A-67AG, PT6A-67B, PT6A-67D, PT6A-67F, PT6A-67P, PT6A-67R, PT6A-67RM, PT6A-67T, PT6A-68, PT6A-68D, PT6E-67XP, and PT6E-66XT engines. The FAA previously sent this AD as an emergency AD to all known U.S. owners and operators of these engines. This AD was prompted by reports of second-stage power turbine (PT2) blade failures. This AD requires removal of affected PT2 blades prior to the next flight and prohibits installation of affected PT2 blades, as specified in a Transport Canada Emergency AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products. This AD is effective March 28, 2024. Emergency AD 2024-04-51, issued on Feb. 16, 2024, which contained the requirements of this amendment, was effective with actual notice. The FAA considers that this AD is an interim action. The manufacturer is currently investigating the root cause of the unsafe condition identified in this AD. If final action is later identified, the FAA might consider further rulemaking. The FAA estimates that this AD affects 75 engines installed on aircraft of U.S. registry. The FAA does not know how many affected PT2 blades are installed on each engine. This cost estimate therefore reflects the cost of replacing one affected PT2 blade per engine. Replacing more than one affected PT2 blade at the same time would not incur additional labor costs. The FAA estimates the cost to replace a PT2 blade of \$4,681 and a cost to U.S. operators of \$351,075. For more information contact Barbara Caufield, Aviation Safety Engineer, FAA, 2200 South 216<sup>th</sup> Street, Des Moines, Washington 98198; telephone: 781-238-7146; email: barbara.caufield@faa.gov.

## Business Aviation Appointments

**Alex Miclos** has been appointed president of business aviation services for **Luxaviation**. Miclos concurrently serves as CEO of Jet Advisor, an aviation firm. He previously served as managing director at Jet Advisor and as OCC duty manager for VistaJet International.

**Rick Rogers** has been named general manager of **Elliot Aviation**. Rogers previously served as head of program management at Comlux. Additionally, **Jose Irizarry** has been named director of quality and safety. Irizarry previously served as director of quality and chief inspector at Hillwood Airways and Saudi Aramco. Irizarry also served as aviation safety inspector and principal inspector with the FAA.

## Business Aviation Passings

**William (Bill) Reavis**, 77, retired **Honeywell Aerospace** director of me-

dia relations, died March 15 after a years-long battle with cancer. Reavis, whose home was in Mesa, Arizona, retired from Honeywell in 2013 after 25 years of service. Reavis served in the U.S. Army and was stationed in Vietnam before graduating from the University of Missouri Columbia School of Journalism. After graduation, he worked for a Joplin, Missouri, television station, before coming to Wichita where he worked for local television stations there. While in Wichita, he joined Learjet, then returned to the broadcast news business in Oklahoma, where he shot and produced the Barry Switzer Coach's show for the University of Oklahoma Sooners football team. Reavis joined Bendix-King in Fort Lauderdale, Florida, in 1988, then transferred to AlliedSignal Engines in Phoenix. He was promoted to director of media relations in 2005 and served in that role under several changes of leadership at AlliedSignal/Honeywell. Reavis was preceded in death by his wife, Susan, and survived by a brother and a niece and nephew.

## Calendar

To list an event, send information in calendar format to [aero.calendar@aviationweek.com](mailto:aero.calendar@aviationweek.com). For a complete list of Aviation Week Network's upcoming events, and to register, visit [www.aviationweek.com/events](http://www.aviationweek.com/events) (**Bold type indicates new calendar listing.**)

**March 26-28**—2024 NBAA International Operators Conference, Hyatt Regency Orlando, Orlando, FL, <https://nbaa.org/events/2024-nbaa-international-operators-conference/>

**April 1-3**—Air Charter Safety Foundation Symposium, Daytona Beach, FL, <https://www.acsf.aero/2024-acsf-safety-symposium/>

**April 9-14**—50th Sun 'n Fun Aerospace Expo, Lakeland Linder International Airport, Lakeland, FL, <https://flysnf.org/>

**April 17-20**—AERO Friedrichshafen, Messe Friedrichshafen exhibition center, Friedrichshafen, Germany, <https://www.aero-expo.com>

**April 30-May 1**—69th Annual Business Aviation Safety Summit, Austin, TX, <https://flightsafety.swoogo.com/bass2024/begin>

**April 30-May 2**—2024 NBAA Maintenance Conference, Portland, OR, <https://nbaa.org/events/2024-nbaa-maintenance-conference/>

**May 15**—2024 NBAA Business Aviation Taxes Seminar, Dallas, TX, <https://nbaa.org/events/2024-nbaa-business-aviation-taxes-seminar/>

**May 28-30**—EBACE2024, Geneva, <https://ebace.aero/2024/>

**June 12**—2024 NBAA White Plains Regional Forum, Westchester County Airport (HPN), White Plains, NY, <https://nbaa.org/events/2024-nbaa-white-plains-regional-forum/>

**July 3-4**—AERO South Africa 2024, Wonderboom National Airport, City of Tshwane, Pretoria, South Africa, <https://aerosouthafrica.za.messefrankfurt.com/pretoria/en.html#>

**Jul. 22-26**—Farnborough International Airshow, Hampshire, United Kingdom, <https://www.farnboroughairshow.com/>

**Jul. 22-28**—EAA AirVenture Oshkosh 2024, Oshkosh, WI, <https://www.eaa.org/airventure>

**Aug. 22-25**—HJOPA Safety Summit and Convention, Colorado Springs, CO <https://hjopa.org/>

**Oct. 2-3**—Malta Aviation Conference and Expo, Location TBA, Malta, <https://mace.aero>

**Oct. 20-21, 2024**—2024 NBAA Tax, Regulatory & Risk Management Conference, Las Vegas, NV, <https://nbaa.org/events/2024-nbaa-tax-regulatory-risk-management-conference/>

**Oct. 22-24, 2024**—2024 NBAA Business Aviation Convention & Exhibitions (NBAA-BACE), Las Vegas, NV, <https://nbaa.org/events/2024-nbaa-business-aviation-convention-exhibition-nbaa-bace/>