# NBAA Convention News

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# New HondaJet wows crowd

by Matt Thurber

Honda Aircraft lifted the curtain and unveiled a "concept" of its next aircraft—a larger light jet with a transcontinental range of 2,625 nm and with a midsize-jet cabin that seats up to 11 occupants—on Tuesday morning at NBAA-BACE in Las Vegas. A mockup of the fuselage with stub wings and engines on pylons is on display this week at Honda Aircraft's BACE exhibit (Booth 3167).

The configuration of the HondaJet 2600 is similar to the original HondaJet HA-420, with Honda Aircraft's patented over-the-wing-engine-mount design, in which the two engines are attached to pylons mounted on top of the wings. This allows for additional space in the cabin because many

engine systems do not need to be installed inside the aft fuselage, while also lowering vibration and noise for passengers.

According to Honda Aircraft president and CEO Michimasa Fujino, the HondaJet 2600 is being developed in a similar fashion as the first HondaJet. That means presenting it first as a concept for market research and then later making a decision on commercialization based on market interest.

"There is a lot of activity in R&D with the interior mockup and progress of our design," he said. "What we are proposing by the HondaJet 2600 is very unique compared to other business jets."

The HondaJet 2600 will have a maximum

cruise speed of 450 knots and a maximum altitude of FL470. At that altitude, cabin altitude is 6,363 feet thanks to the composite fuselage, similar to the HA-420 fuselage construction. At FL450, cabin altitude is 6,124 feet. For the HondaJet 2600, the fuselage will be more oval-shaped, increasing headroom and shoulder space at each seat. The cabin interior measures 62.5 inches high from the dropped aisle to the ceiling, and 61 inches wide—4.5 inches taller and one inch wider than the HA-420's cabin.

The cabin features a modular design, with options for seats such as two double clubs or a single club seating area and a

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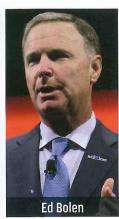
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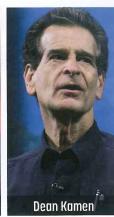












# **NBAA-BACE** returns with gala kick off

by James Wynbrandt

NBAA-BACE 2021 kicked off with a rousing keynote session featuring FAA Administrator Steve Dickson, aviation innovator Martine Rothblatt, cutting-edge inventor Dean Kamen, and NASA Mars Ingenuity helicopter leader Teddy Tzanetos, along with lots of laughs from actor/comedian and retired USMC Lt. Col. Rob Riggle.

Preceded to the stage by a marching drum corps dressed in pulsing illuminated suits one could imagine on the Starship Enterprise's house band, NBAA president and CEO Ed Bolen welcomed attendees back after last year's pandemic-induced virtual event.

"The industry is taking off," Bolen proclaimed, citing orders for new aircraft, demand for preowned aircraft, and flight activity. "It's an exciting time to celebrate

where we've been, where we are, and more importantly, where we want to go," he said.

Bolen also announced that BACE is carbon-neutral this year, through offsets purchased from 4Air, and underscoring the gathering's focus on sustainability.

BACE's focus on the future this year was personified by Rothblatt, winner of the NBAA Meritorious Service Award. She was introduced by Kamen, who recapped a few of her contributions to aviation, seconded by personal congratulations to her on video from leaders, including former NTSB chairman Robert Sumwalt and XPrize founder Peter Diamandis.

Rothblatt founded United Therapeutics to develop an FDA-approved infusion technology to save thousands of youngsters-her daughter included-from a fatal congenital cardiac defect. One of her companies is now developing drones and a drone network to deliver to hospitals fresh organs and tissue for transplants United Technologies is developing.

A passionate pilot and business aviation consumer Rothblatt quoted Orville Wright: "You cannot advance technology unless you're willing to question assumed truth," and thanked her "amazing flight operations team" as her go-to first consultants when questioning assumptions, often conceived in the air. "When you're flying straight and level, you have a lot of time to think," she said.

FAA chief Dickson, outlining some of the forthcoming new technologies, said, 'This is the most exciting time in aviation and aerospace since the development

of the jet engine" and explained how the FAA will "nurture that innovation while providing a safe and efficient aerospace system."

The agency's initiatives include "performance-based rules and regulations, and large doses of collaboration and cooperation with the aviation community." New rules on commercial space licensing in March will speed innovations. Dickson said the 2021 fiscal year, which ended in September, saw 64 total commercial space ops-more than double 2020's figures, which included five launches and five reentries.

New Part 23 rules, he said, will expand the capabilities of certificated and lightsport aircraft, among other benefits. The FAA's new Women and Youth Jobs Task Force aims to help create a path so "any person has a shot, if they have the drive and determination, to take on a career in aerospace." The FAA has also established a Center for Emerging Concepts and Innovation and an internal Advanced Air Mobility (AAM) Executive Council.

NASA's Tzanetos, who led the team that developed Ingenuity, explained the rotorcraft's mission and displayed video from the Perseverance Mars Rover that captured "our Wright Brothers' moment," when Ingenuity rose for the first time from the surface of Mars and hovered for 39 seconds.

Ingenuity has since met all its mission goals and is now scouting locations for the Rover to explore. Tzanetos also showcased next-gen multi-copters capable of carrying scientific payloads that NASA plans to deploy on Mars in the future.

# CAE to bring new flight simulator training base to LogistiCenter in Las Vegas

CAE (Booth 1501) will expand its flight-training footprint in the U.S. with the start of construction on a new major pilot training facility in Las Vegas. Work on the new training center was announced vesterday at NBAA-BACE in Vegas. Slated



CAE's 7000XR simulator is the type that will be installed in its Las Vegas facility.

to open in mid-2022, it will be CAE's first training center on the West Coast.

The location was chosen as part of the Canadian flight training provider's strategy to situate its centers in areas where its customers fly their aircraft, and it will be located at LogistiCenter at Sunset, a newly-built, 151,200-sq-ft building on the southeastern corner of Harry Reid International Airport. It is expected to eventually house eight full-flight business aircraft simulators for platforms including the Gulfstream G550 and G650, as well as the Bombardier Global 7500.

"This new training center is an important addition to our global network of centers and underscores our commitment to helping the business aviation industry build and grow a strong pipeline of pilots," said Nick Leontidis, the Canadian company's group president for civil aviation training solutions, adding that CAE has received a warm welcome from both the city and state. "We look forward to playing a key supportive role in Nevada's aerospace and defense industry for many years to come."

## ■ Technology, SAF key to 2050 eco-goals

Following a pledge announced Tuesday at NBAA-BACE 2021 that business aviation will reach net-zero carbon emissions by 2050, Omer Bar-Yohay, co-founder and CEO of electric aircraft manufacturer Eviation Aircraft, said, "I think we not only can do it and must do it, but we can actually do it earlier. We can put the pressure on the supply chain to push the technology to where we should be."

Speaking at the second annual Business Aviation Sustainability Summit midday Tuesday at BACE (the first edition was held virtually last year as part of VBACE), Bar-Yohay was part of a discussion moderated by journalist Miles O'Brien that also featured Bryan Sherbacow, president and CEO of new sustainable fuel company Alder Fuels.

Bar-Yohay noted that the business aviation industry has been improving its efficiency on the order of 2 to 3 percent a year for the past several years. "That happens because it makes economic sense," he said. "Yes, it's also the right thing to do for the climate. Yes, it's also good for a lot of things, but this is the driving force that makes things happen."

Sherbacow, who was formerly the chief commercial officer at SAF producer World Energy, noted that 2050 is closer than it seems. "One of the things that people need to be mindful of is that targets that are out there on the horizon, in order to achieve them, we need to be pushing really hard today. We can't be complacent that we have time."

Describing the process needed to create a sustainable aviation fuel (SAF) refinery, he stated: "These are significant projects that take a significant amount of planning and time to be able to implement." Aside from obtaining financing and other hurdles, "an average refinery conversion that produces fuels is going to take about three years on average, that's for one, and we will need dozens of these things."

Both Bar-Yohay and Sherbacow agreed that government support will be crucial over the coming years to spur environmental improvements, through the funding of research and development and providing incentives to fuel producers to increase SAF capacity and

# Bizav strives for net-zero CO<sub>2</sub> emissions by 2050

by Jerry Siebenmark

Key business aviation organizations are expanding upon a global effort begun a decade ago to lessen the industry's impact on the environment, including a new goal to achieve net-zero  $\mathrm{CO}_2$  emissions by 2050. Industry leaders announced the stepped-up goals during a panel discussion at the media breakfast Tuesday at NBAA-BACE.

Goals established in 2009's Business Aviation Commitment on Climate Change (BACCC)—an initiative of the International Business Aviation Council, NBAA, and General Aviation Manufacturers Association—included increasing fuel efficiency by 2 percent a year between 2010 and 2020, reducing carbon emissions 50 percent by 2050, and achieving carbon-neutral growth by 2020.

"If we look back at where we were in 2005, we were 16 metric tons in emissions," said NBAA president and CEO

Ed Bolen. "We had hoped to get down to eight [metric tons]. We could go all the way down to four [metric tons] and we're driving that quickly down to zero because we are making these advances in other areas. And so, as a result of the progress that we've made over the past decade, as a result of the tools that we see in our toolbox...we will be carbon net-zero by 2050."

It's important that business aircraft manufacturers are aligned with industry goals, added Nicolas Chabbert, senior v-p of Daher's aircraft division. "It's probably a condition of our survival," he said.

Besides achieving net-zero carbon emissions, another expanded goal is to continue to increase fuel efficiency by 2 percent a year between 2020 and 2030. Sustainable aviation fuel (SAF) will play a key part in achieving those goals, even with its current price premium of about



(I to r) Elizabeth Dornak, NBAA chair; Ed Bolen, NBAA president and CEO; Pete Bunce, GAMA president and CEO; and Nicolas Chabbert, senior v-p of Daher's aircraft division.

\$1.40 over regular jet-A in Texas, for example. Even at that premium, "it's not an outrageous number," said NBAA chair Elizabeth Dornak. "It's manageable."

Increased production, availability, and use of SAF are key to the effort as are carbon offsets.

So are advancements in technology, with business aviation leaders pointing to winglets, aerodynamic optimization, electric and hydrogen propulsion, composites, advanced alloys, and technology plotting

the most fuel-efficient routes as some of the areas where additional improvements could have an impact.

GAMA president and CEO Pete Bunce said he's confident the industry can achieve its goals knowing the analysis and science that went into a 2008 study led by Bombardier as part of the BACCC and has since been updated several times, including for the industry's newest goals.

"The amount of science that went into this is truly impressive," Bunce added.

Other sustainability initiatives have been put in place at BACE, including an all-new carbon offset program that will make it one of the world's largest carbon-neutral events, according to NBAA. Additionally, nearly 100 exhibitors signed a "green pledge" to limit their environmental footprint. SAF is also available during BACE at Henderson Executive Airport and Las Vegas Harry Reid International Airport. And through a bookand-claim option, inbound fights can purchase SAF even if it is not supplied at their departing airports.

"By using those tools we discussed—SAF, new propulsion systems, operations, technology, infrastructure, and market-based measures—this is our commitment today," added Bolen.

## ForeFlight apps add new integrated features

ForeFlight is releasing enhancements to its Dispatch and Mobile applications that bring new integration, as well as new features such as weight-and-balance improvements, fuel tankering, eAPIS services, a custom navlog builder, and additional aircraft available on ForeFlight's runway analysis service.

"We're bringing it all together for business aviation," said Stephen Newman, ForeFlight executive v-p of sales and marketing. "Dispatch is at the center, and it's a new, modern collaborative flight planning system."

After introducing runway analysis earlier this year, ForeFlight has already developed engine-out procedures for more than 60 percent of the common business aviation fleet, according to Newman. More aircraft are added with each new software release.

ForeFlight has redesigned its weightand-balance system so it is more integrated into the flight planning workflow, and this was released just before NBAA-BACE.

Fuel Advisor's tankering advice is new, and it will be available in Dispatch later this

year. Fuel Advisor looks at a string of legs for a trip and gives advice on whether or not to tanker fuel, based on fuel prices, leg lengths, and other factors. "Fuel advisor knows what legs to string together," he said. "We'll pull in jet-A contract pricing, and there is an opportunity to set price breaks or waivers for airports or FBOs. It crunches the numbers and puts out a scenario that optimizes savings in terms of fuel uplift."

"Our focus has been around embedding ourselves with customers to understand their pain points and working to address those," Newman said.

M.T.

### AIN writers honored at NBAA media awards

**AIN** Media Group editors were honored with two journalism awards presented at the annual media breakfast ahead of the opening session on Tuesday at NBAA-BACE in Las Vegas.

NBAA bestowed **AIN** senior editor Kerry Lynch with the David W. Ewald Platinum Wing Award for her lifetime achievements and excellence in business aviation reporting. Lynch joined **AIN** in 2014 as its Washington editor, reporting on government and regulations and industry news. She serves as the editor for the company's Heli-Expo show editions, as well as managing editor for **AIN**'s **NBAA Convention News** show daily.

This comes after a 25-year career with Aviation Week, where she steered the *Weekly of Business Aviation* newsletter for five years, and also oversaw business aviation content for the Aviation Week Intelligence

Network. In 2012, she became *Business & Commercial Aviation's* Washington columnist and also spent nearly five years in that same role for the company's monthly *Overhaul & Maintenance* magazine.

She was a recipient of NBAA's Gold Wing Award in 2003, and in 2004 took home the NATA Aviation Journalism Excellence Award.

"Everyone on the **AIN** team is so grateful for the well-deserved recognition Kerry received," said editor-in-chief Matt Thurber. "We all appreciate her extraordinary talent and skill when telling the story about business aviation."

James Wynbrandt, a contributing editor for **AIN** sister publication *Business Jet Traveler*, earned this year's NBAA Gold Wing Award for Journalism Excellence for his article "*Flying in the Age of Covid-19*," which

was published in the fall 2020. The story explored how pandemic-induced changes to the business aviation landscape would affect everyone in the industry and how those changes might be addressed.

"We're delighted by this recognition for James," said *BJT* editor Jeff Burger. "He has been a regular contributor to our pages for many years, and his knowledgeable, well-researched articles on the charter field, the preowned market, and many other subjects have added significantly to our magazine."

Burger noted that this article was also a finalist in this year's Aerospace Media Awards, and it is currently a finalist for Best Single Article in a travel or transportation magazine in the Folio: Eddie Awards. This is the second consecutive Gold Wing for Wynbrandt, who also won in 2019. Business Jet Traveler contributors have earned six of the past 12 NBAA Gold Wing awards.



AIN writer James Wynbrandt won NBAA's Gold Wing Award and senior editor Kerry Lynch the Platinum Wing Award.



Dassault Aviation chairman and CEO Eric Trappier (r) and Carlos Brana, the French airframer's executive v-p for civil aircraft, update the audience on the company's progress over the past year in the face of the global Covid pandemic on Monday during NBAA-BACE 2021.

# Dassault's Falcon 6X logs more than 300 hours

by Curt Epstein

Dassault Aviation (Booth 2001), updating the progress of its two new business jet programs on Monday at NBAA-BACE in Las Vegas, reported that it now has three Falcon 6X airframes flying two to three times a week that have collectively logged more than 300 hours over some 100 flights.

Dassault rolled out its large-cabin Falcon 6X in December, unveiling an aircraft

that has the largest cross-section dimensions of any purpose-built business jet. The aircraft made its first flight in March and two more joined the program since then. "Our test pilots have given the 6X high marks for its excellent handling," said company chairman and CEO Eric Trappier, adding they compare its maneuverability favorably to the company's fighter jets. Transport Canada certification of

its Pratt & Whitney PW812D engine is expected by year-end.

Around that time, a fourth airframe the first production 6X—will fly for the first time, according to Trappier. It will be delivered to Dassault's Little Rock, Arkansas completion facility early next year to get a full interior installed. Trappier said that, upon completion, this aircraft will embark on a tour around the second quarter to demonstrate its performance capabilities at airports around

"There is still considerable test activity to be completed, as in any test campaign," said Trappier. "But we can report at this point that we are achieving milestones at a pace that our test engineers are really happy with."

Entry-into-service for the 6X is expected late next year, and the OEM's product support organization is preparing for that event with spare parts on order for delivery to strategic locations around the world to ensure maximum support for flight departments from day one.

In a surprise move in May, the French airframer officially announced the launch of its new flagship-the ultra-long-range, high-speed 10X—which will be the largest business jet on the market when it enters service in 2025. Trappier noted that the project is moving along nicely with detail design completed by year-end and parts production to commence in 2022.

At BACE, the company has full-scale mockups of both aircraft at its static display (#A207), along with an example of its current top-of-the-line Falcon 8X.

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HondaJet wows NBAA-BACE crowd

divan across from two seats. There is a full-height galley, an enclosed lavatory larger than the HA-420's, and four round skylights (two in the main cabin and two in the lavatory). Distance from seatback to seatback is seven feet. Honda Aircraft engineers have designed a special mattress that lies across two seats for a lieflat bed, eliminating the need to fold seats down to create a sleep surface.

The genesis of the HondaJet 2600 concept is demand for rapid cross-country travel with more passengers and payload, according to Fujino. The goal is transcontinental capability, and the 2600 will be able to fly to its maximum range with four passengers.

Fitting into the light jet category with a maximum takeoff weight in the 17,500pound range, the HondaJet 2600 "is very unique compared to other business jets," Fujino said. "While current jets all can run on sustainable aviation fuel (SAF), he added, "none were mainly designed around the environment or focusing on fuel efficiency. The [HondaJet 2600] is designed

around environmental considerations and a focus is on fuel efficiency.

"Fuel efficiency is 20 percent better than light jets, and if you compare the range, it is in the midsize jet range, but fuel efficiency is 40 percent better than a midsize jet. Generally speaking, many business jet users may not necessarily always fly long-range, but if you want to go transcontinental, you have to go to a midsize jet. This is a new concept of business jet, with fuel efficiency, high payload capability, and transcontinen-

Like the HA-420, the HondaJet 2600's over-the-wing-engine-mount design has been tested in a high-speed wind tunnel. According to Fujino, the testing showed that the 2600's natural laminar flow and engine placement delays the drag rise that accompanies high-speed flight, which is a key reason for HondaJet efficiency.

Honda Aircraft is testing the market to assess demand for a jet like the HondaJet 2600, and that is in part why it unveiled the concept airplane at NBAA-BACE 2021. No decision on launching the jet program has been made.

If the 2600 does get the go-ahead, it will be certified in the Part 23 commuter category and will be a single-pilot airplane. Fujino said he can't disclose any information about engine selection for now. But GE Honda Aero Engines, which manufactures the HA-420's 2,050-pound thrust HF120 engine, has long maintained that the engine design could be part of a family with larger siblings. The Citation CJ4, roughly in the same class as the HondaJet 2600 although with a smaller cabin and about 500 nm less range, is powered by two 3,621-pound Williams FJ44-4As.

Avionics will be similar to the Garmin G3000 flight deck in the HA-420, with the addition of autothrottles and a runway overrun awareness and alerting system. Fujino said the design will include "more electrification," with a brake-by-wire system, auto brakes, electric landing gear, flaps, and spoiler actuation, and Honda Aircraft's Advanced Steering Augmentation System, which provides directional assistance to the nosewheel steering to increase stability after landing.

The original HondaJet "made a mark on this industry," Fujino said after unveiling the HondaJet 2600 mockup at BACE. "We became aware of a need for a new kind of aircraft based upon a new market segment. This concept will unlock an entirely new frontier of possibilities, new destinations, and an opportunity to reduce aviation's carbon footprint."