

BUSINESS AVIATION



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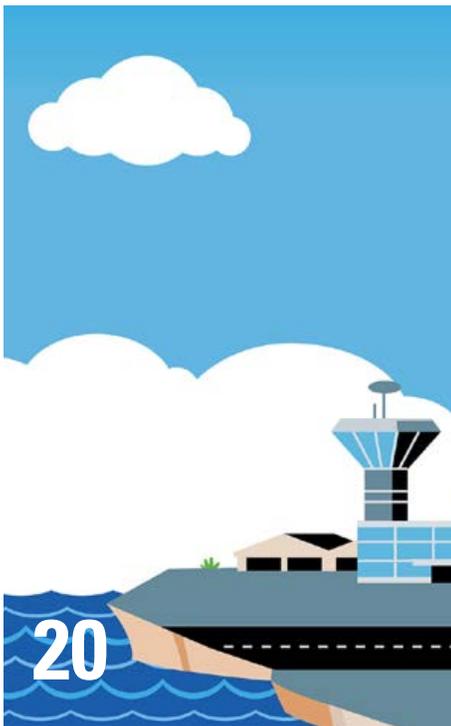
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Flying Safely, Securely and Sustainably Worldwide



ED BOLEN
President and CEO

NBAA has long promoted business aviation's outstanding record on safety and security; for years the association also has highlighted the industry's outstanding commitment and

accomplishments in decreasing its carbon footprint. For example, business aviation has pioneered emissions-lowering technologies, including lightweight composite materials, winglets, GPS and more efficient engines that have helped aircraft fly quieter and consume less fuel.

A more recent innovation holds tremendous promise to reduce emissions: sustainable aviation fuels (SAF), which are certified, safe, available today and have the potential to cut emissions by up to 80%. NBAA recently joined with other GA groups to showcase the potential of these fuels.

In January 2019, NBAA helped stage at California's Van Nuys Airport the first business aviation demonstration of the viability and benefits of SAF. The event, attended by media representatives and civic leaders alike, was a major industry milestone.

In May 2019, a similar SAF event was held for the first time in Europe at Farnborough Airport. Just days later, 23 SAF-fueled business airplanes flew from several U.S. and European airports to Geneva for the European Business Aviation Convention & Exhibition (EBACE).

At the 2019 Business Aviation Convention & Exhibition (NBAA-BACE), every refueling turbine aircraft on display departed from Las Vegas Henderson Executive Airport powered by SAF.

Safety, security and sustainability are fundamental to the future of business aviation worldwide.

In January, NBAA and its industry partners made SAF available for flights departing from the World Economic Forum.

Now, we want to get everyone in the fuel value chain to find the best ways to further promote the availability and use of SAF. On March 24 in Washington, DC, NBAA will join with several sister associations in hosting the first-ever Business Aviation Global Sustainability Summit, which will focus on finding ways to accelerate the production and use of SAF. With the summit we want to bring stakeholders together to determine what we can do – individually and collectively – to encourage large-scale production and consumption of SAF.

SAF is a key technology that will help us meet our industry's emissions goals, and NBAA is looking forward to the summit and other opportunities to demonstrate to government policymakers, regulators, the media and the general public how business aviation is continuing to work toward reducing its carbon footprint.

Many individual operators are doing all they can to achieve sustainable operations, but it is equally important that collectively we be perceived as leading the way on flight sustainability because safety, security and sustainability are fundamental to the future of business aviation worldwide. ❖

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Make sure your operation is ready for political-related flight operations with this guide to navigating Federal Election Commission regulations.

nbaa.org/fec



NEW GUIDELINES FOR SINGLE-PILOT TRAINING

In collaboration with NTSB, NBAA's Safety Committee has developed guidelines for safe operation of smaller aircraft that utilize advanced cockpit technology.

nbaa.org/vlj

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Resources: International Operations

Whether you're a seasoned international operator or flying overseas for the first time, all operators flying outside the U.S. should review NBAA's international operations web page for resources and news. nbaa.org/intl

PLAN AHEAD FOR 2020 TOKYO OLYMPICS

The Japan Civil Aviation Bureau has released slot coordination guidelines for the six airports that will handle general aviation aircraft flying to Tokyo for the 2020 Summer Olympics and Paralympics, which will be held July 24-Aug. 9 and Aug. 25-Sept. 6, respectively.

NBAA members are urged to begin planning their flights to Japan now if they intend to support the games or have business in the region. Japanese airports can be congested and have a limited number of parking spots and departure and takeoff slots. nbaa.org/intl/tokyo

SAFETY ASSESSMENT OF FOREIGN AIRCRAFT

U.S.-registered business aircraft flying in Europe are subject to Safety Assessment of Foreign Aircraft (SAFA) ramp inspections when operating in European Union (EU) member states. To ensure a successful ramp inspection, NBAA recommends that operators review the rules and procedures regarding compliance with SAFA.

nbaa.org/safa

2020 INTERNATIONAL OPERATORS CONFERENCE

Attending NBAA's International Operators Conference (IOC2020), slated to take place in Charlotte, NC, March 16-19, is an excellent way to stay up to date on all the information international operators need. The conference outlines best practices for aviation operations that fly overseas. nbaa.org/ioc

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The number of U.S. passport agencies that can expedite passport processing for citizens traveling in two weeks or less, or who need a visa in four weeks or less

SOURCE: U.S. DEPARTMENT OF STATE (TRAVEL.STATE.GOV)

By the Numbers: Universal Weather's Top 5 Tech Stops

Universal Weather and Aviation's Top 5 tech stops serve flights bound for the top 100 international destinations.

Tech stops give longer-range aircraft a strategic advantage because those aircraft can arrive at their destination with "get out fuel," noted Bryan Talley, lead mission advisor in Universal's Trip Support Services Division. Should a situation arise, the flight doesn't have to wait for a fuel truck. "It is prepped and ready to load up and leave the airport."

A favorite tech stop is Shannon, Ireland. "Shannon is still a great tech stop because it is fast, with inexpensive fuel," noted Talley. "It gets the flight to its destination without worrying about unexpected winds, weather, airspace restrictions, or conflicts." Shannon also offers pre-clearance customs services for aircraft returning to the U.S. (See the Smart Tech Stops feature story on page 20.)



DATA SOURCE: UNIVERSAL WEATHER & AVIATION



SEN. JOHN BOOZMAN (R-AR) is Arkansas's senior U.S. senator and the dean of the state's congressional delegation. A fifth-generation Arkansan and optometrist, he co-founded a family business with his brother that would ultimately become a major provider of eye care to people in Northwest Arkansas. Boozman's experience as a healthcare provider and a small business owner guide his approach to governing. He is committed to advocating for economic policies that help Arkansas's small businesses continue to grow and add jobs. Boozman serves on four congressional committees, including the Appropriations Committee and its Subcommittee on Transportation. First elected to the U.S. Senate in 2010, he previously represented the people of Arkansas's third district in the U.S. House of Representatives.

On Twitter
@JohnBoozman

GA Caucus Chairs Are Industry Advocates in the Senate

Sen. John Boozman and Sen. Joe Manchin are the co-chairs of the Senate GA Caucus in the 116th Congress.

Q: You both represent rural states with limited airline service, why is GA vital to Arkansas and West Virginia?

Boozman: Without GA, too many Arkansas communities would be underserved and economic growth would be stifled. There are 90 airports in my state, yet only eight have airline service. That leaves many Arkansans reliant upon GA for their travel needs and, to a large degree, their livelihoods. Agriculture is a quarter of Arkansas's economy, and GA is critical to allowing the industry to flourish. The economic impact of general aviation itself can't be overlooked. Our GA airports support more than 5,000 jobs with an economic output of nearly \$500 million, making them a critical part of the Arkansas economy.

Manchin: In our state, we have 17 GA airports that connect rural communities not served by the airlines. These airports support nearly 1,000 GA aircraft, provide more than 5,000 jobs and offer much-needed community services. For example, the Upshur County Regional Airport is home to an air ambulance service that connects patients in the area with critical medical care. As a GA pilot myself, I have seen firsthand how the industry benefits West Virginia, and I will continue to highlight its importance in the Senate.

Q: Passage of the FAA Reauthorization Act of 2018 was a significant accomplishment and provides the resources and certainty for aviation to grow. What GA-focused aspects of this legislation are most important?

Boozman: While the construction phase of a project provides a welcome short-term economic jolt, that isn't the real benefit from infrastructure investment. Rather, it's the long-term growth created and sustained after completion. Building new – and improving existing – runways, taxiways, terminals and other airport facilities are perfect examples of the type of infrastructure investment that will generate long-term growth. The fact that the reauthorization commits more than \$3 billion to these types of projects is great news for the GA community, which stands to benefit immensely from this new and improved infrastructure. Another key provision for GA that was included in the reauthorization focuses on the recruitment and training of the next generation of pilots and technicians. One of the challenges facing the industry is how to meet the estimated shortfall for these professions. I believe the new training programs authorized by this law will help meet workforce demands while putting thousands of Americans on a new and rewarding career path.

Manchin: I was very pleased that my language for mountaintop airports was included in the bill. Airports in flat areas can often buy adjacent land and use it to bring in additional revenues and traffic; however, mountaintop airports face additional challenges related to topography, and often must move earth to make the land useable. Even simple infrastructure like power lines or high-speed broadband have increased costs that make projects cost-prohibitive for rural airports, so my language makes it easier for airports like those in West Virginia to compete for grants for mass grading and infrastructure like access roads. Additionally, the authorization of a new infrastructure program for small and medium-size airports has the potential to provide infrastructure



SEN. JOE MANCHIN

(D-WV) was sworn into the Senate in November 2010 to fill the seat left vacant by the passing of Senator Robert Byrd. Born and raised in the small coal mining town of Farmington, Manchin was a small businessman before becoming a state legislator and later governor. As a government official, he has been committed to common-sense fiscal management and bipartisanship. He believes that job creation should be a top priority, and that government should act as a partner, not an adversary, in helping to create an environment that produces good jobs. Manchin also believes that common-sense ways to cut spending are needed while still keeping commitments to seniors and veterans by protecting Social Security and Medicare. Manchin currently serves on four committees, including the Appropriations Committee.

On Twitter
@Sen_JoeManchin

improvements in West Virginia. These airports are a key part of our transportation system, and I am pleased that they will have improved access to federal funds, which is why I supported this provision. Finally, the legislation builds on the Pilot's Bill of Rights by improving NOTAMs and requiring their posting in a centralized online forum.

Q: One of the major challenges for general aviation is meeting the increasing demand for qualified pilots and maintenance technicians. How are each of you addressing this issue?

Boozman: Arkansas and aviation are intertwined. My state is home to 180 aerospace and defense companies, including Dassault Falcon Jet, which chose Little Rock as the site for its largest facility in the world. Aircraft and aircraft parts is our top export. As a result, we have a clear understanding of the distinct needs of the industry, including the workforce challenges facing general aviation. To address this, we are expanding STEM funding and opportunities in Arkansas, as well as enhancing career and technical education programs. For example, at Henderson State University there is a thriving four-year aviation program with 15 training aircraft. Also, there is a program for aspiring aviation maintenance technicians at seven locations in the state. These efforts, along with the aforementioned programs in the FAA reauthorization, will help expand general aviation recruitment and training opportunities across the state.

Manchin: Last year, I traveled to the Bombardier maintenance and repair facility in Bridgeport, WV, and heard firsthand of the difficulties they face finding qualified workers – even though these jobs pay very well and offer excellent careers. We have thousands of jobs in West Virginia that we haven't filled yet. When people say, "I have to leave the state to find a job," I tell them that you just need to come to a job fair and you'll find plenty of good jobs here. That's why

I've held 48 job fairs across the state to connect West Virginians with good-paying jobs. I've also worked in Congress to support grant programs that help train new workers. As part of the FAA reauthorization, a grant program was authorized to advance aviation education, teacher training and outreach to students, and during the appropriations process, I advocated for full funding of this program. Finally, the Robert C. Byrd National Aerospace Education Center recently received a grant from the Economic Development Administration (EDA) to help fund advanced avionics trainers for students in the aviation maintenance program. I've long supported the EDA, and these types of programs will help produce the next generation of aerospace workers and generate high-paying jobs for West Virginians.

Q: What is the most effective way for NBAA members to educate Congress about the value of general aviation?

Boozman: The GA industry has a powerful story to tell of high-paying jobs and economic development that provides benefits across the United States. The GA Caucus provides a forum for members of Congress to connect with the industry, and I encourage NBAA members to ask their elected officials to join. With 5,000 public-use U.S. airports, general aviation is in the unique position of positively affecting nearly every member of Congress, so I urge NBAA members to use this as an opportunity to build relationships and strengthen the community.

Manchin: West Virginia has a rich aviation history, and, as a pilot, I am always interested to hear from the GA industry. During the FAA reauthorization debate, the community successfully came together to protect its access to airports and airspace, and we should build on that by expanding the GA Caucus. Through forums such as town hall meetings and NBAA's Contact Congress resource, I encourage anyone involved in GA to reach out to their members of Congress and educate them about this dynamic industry. ✨

REGIONAL REPRESENTATION

Local and Regional Group Roundtable Coming to Florida

Workforce development tips, ideas for safety days and other educational events, membership retention issues and supporting the formation of new groups will be among the topics to be covered at the eighth Local and Regional Group Leadership Roundtable, to be held June 4-5 in Fort Lauderdale, FL.

NBAA's Local and Regional Groups (LRG) Committee sponsors this annual event, which this year will be hosted by the South Florida Business Aviation Association (SFBA).

"An important part of the roundtable is providing time to network and share ideas and best practices," said Marj Rose, chairwoman of the LRG executive team. "Each group is unique, with different goals and areas of expertise, so we learn a lot from each other in a very short amount of time."

Rose noted that many of the topics and workshops at the 2020 roundtable will be based on feedback and polling results from an LRG best practices session held at the 2019 NBAA-BACE in Las Vegas, NV.

The Fort Lauderdale Marriott Harbor Beach Resort & Spa will be the venue for this year's roundtable, according to Jeff Ramsden, president of SFBA.

"We are very excited to host the roundtable and look forward to a great event," said Ramsden.

First held in 2013, the Regional Group Leadership Roundtable has continued to grow and attract regional group leaders from across the country. The event offers an unparalleled opportunity for leaders to share best practices and network, but it also offers opportunities for them to take back what they learn and share it with their respective organizations.

"The exclusive focus [of the regional roundtable] on the challenges, issues and goals of regional business aviation groups means that everyone comes away with meaningful and useful information."

STEVE HADLEY

*Southwest Central Region Representative,
NBAA*

All six of NBAA's regional representatives are scheduled to participate in this year's regional roundtable.

"This event is one of the highlights of the year for us," said Steve Hadley, senior director of NBAA's regional programs and Southwest Central Region representative. "The exclusive focus on the challenges, issues and goals of regional business aviation groups means that everyone comes away with meaningful and useful information, goals and ideas.

"Each group is organized differently and has its own unique objectives," explained Hadley, "but ultimately, we all want to do the best job we can advocating for business aviation. Learning from peers is one of the best ways to accomplish that." ❖

Review NBAA's regional group resources at nbaa.org/regional.



NEW REGIONAL GROUP FOCUSES ON CENTRAL FLORIDA

Florida is home to many business aircraft operators, flight schools, aviation universities, manufacturers, MROs and more, as well as regional business aviation associations. In the Orlando area, the Central Florida Business Aviation Association (CFBAA) has been launched to promote and support the growth of business aviation in Central and North Florida.

CFBAA seeks to provide "a platform to network, educate and engage the community while presenting a unified voice for issues affecting our membership," according to the group's mission statement.

"We are looking forward to focusing on the issues and challenges in our area of Florida, while still collaborating with the other regional aviation groups in the state on legislative issues," said CFBAA Board Member Jenny Showalter.

The group is planning a safety day in late spring and a collaborative event with Women in Aviation, Inc. CFBAA will be working with NBAA in reaching out to area schools and students to get them involved in the 2020 NBAA Business Aviation Conference & Exhibition, according to Matthew Olafsen, CFBAA vice president.

"Workforce development will be one of our primary focus areas, and we hope to get our members involved in mentoring and other workforce programs," said Olafsen.

www.cfbaa.org

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INDUSTRY CHALLENGE

Charter operators flying to Mexico should review their documentation for clarity and legibility. Operators should also consider applying for an Indefinite Blanket Permit to ensure more efficient operations to Mexico.

NBAA RESPONSE

NBAA is monitoring potential upcoming changes to Part 91 and Part 135 operator documentation requirements and will report any relevant changes to members.

Mexico Increases Oversight of Foreign Part 135 Operators

Last October, the Civil Aviation Authority of Mexico became the Civil Aviation Federal Agency (AFAC) as part of a restructuring of Mexico's civil aviation authority. One result is an increased focus on oversight of non-Mexican Part 135 operators, in part to curb illegal charter activity.

"The creation of the agency and its intention to improve aviation seems to require some adjustments ... of current practices," said Nelson Garcia, operations manager at Manny Aviation Services, a Mexican handler. "This could indeed give the impression of increased oversight; however, it doesn't necessarily mean bad news, as the end result promises to be worth it."

Garcia is encouraging charter operators to consider the following documentation requirements when flying to Mexico.

Worldwide and Mexican insurance policies are required to fly into Mexico, and AFAC officials seem to be scrutinizing these documents more recently. While digital copies of insurance policies are acceptable, the copies must be clear and free of signs of possible tampering or modification.

All foreign operators must name a legal representative through a power of attorney, appropriately notarized and apostilled, when submitting applications for authorizations. An operator applying on short notice for a single landing authorization may submit a digital notarized copy, but an original must be submitted later.

Finally, charter operators with more than a single need to fly into Mexico should apply for an Indefinite Blanket Permit (IBP), as AFAC tracks operators' requests for single landing authorizations and repeated requests are discouraged. IBPs are more efficient than single landing authorizations, says Garcia, as IBPs apply to an operator's entire fleet and have no expiration date, although operators must submit to an annual verification process to ensure consistent coverage, as well as renewal of the Mexican AOC every two years.

"Increased oversight of foreign charter operator documentation should lead to fairer competition and ensure safe, compliant charter operations to and from Mexico."

DOUG CARR

Vice President of Regulatory and International Affairs, NBAA

Overall, AFAC has greater authority and autonomy than its predecessor, explained Garcia. "It is therefore estimated that the performance of the new agency will aim for high standards of safety, efficiency and competitiveness, tending to ensure that air transport in Mexico fulfills the safety needs of both users and the Mexican airspace."

AFAC will publish a "manual of organization" 180 days from the publication on the Official Gazette, which might include additional documentation or procedure changes.

For now, there are no changes to documentation requirements for Part 91 operators, although for multiple entry authorizations, the same requirements for power of attorney apply.

"Increased oversight of foreign charter operator documentation should lead to fairer competition and ensure safe, compliant charter operations to and from Mexico," said Doug Carr, NBAA's vice president of regulatory and international affairs. "NBAA will monitor AFAC's work for any additional changes that may be forthcoming." ❖

Review NBAA's resources for international operations, including flying to Mexico, at nbaa.org/intl.



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PRO TIPS



Students: Internships Are Portals to Maintenance Careers

Among aviation employers, there's no consistent definition of "apprenticeship" or "internship," but their goals are the same, said Daphne Hayden, internship program manager for Executive Jet Management. They are employment pipeline portals that provide hands-on experience and first-hand exposure to the real-world industry in which students are seeking a career.

The specific benefits of maintenance internships vary, depending on the sponsoring company, but the job postings typically include all the pertinent details.

Most maintenance internships are 12-week summer programs. Application periods usually start around New Year's, and aviation students typically apply through a company's career or human resources website.

When making application decisions, Hayden said students should weigh long-term career benefits versus short-term remuneration. "Just because someone pays you well doesn't mean you're going to have a rewarding internship."

An internship actually is a two-way street, said Bradley Hennis, Proctor & Gamble's director of maintenance. "Interns are given meaningful work, gaining hands-on, real-world experience. In turn, they expose maintenance technicians to various practical applications of the latest technology and processes acquired during their studies and collegiate aviation employment experiences."

Employment is an important internship goal, but getting hired requires an open position, said Tom Meier, aviation maintenance chief at Amway Corp. His company has hired interns twice. Amway's other interns have gotten jobs elsewhere in aviation right out of college.

For students searching for internships, there is no clearinghouse for all listings, noted Allison Moser, Executive Jet Management's vp of human resources and administration. So the college career office probably is the best place to start, since many operators have forged relationships with collegiate aviation programs. ❖

HOW INTERNSHIPS HELP STUDENTS

Internships...

- Are the best way to introduce aviation students to a business aviation career
- Enable students to evaluate their level of interest in pursuing a business aviation career
- Give students opportunities to connect classroom theory with industry challenges and be exposed to the latest technologies and trends
- Provide young people with opportunities to interact with experienced professionals, which gives them deeper insight into the overall operation
- Help students gain insight into the demands, tasks and interactions among the many roles within a flight operation
- Provide access to mentors who can provide guidance that enhances a student's education and career development.

Review NBAA's internship resources at nbaa.org/internships.

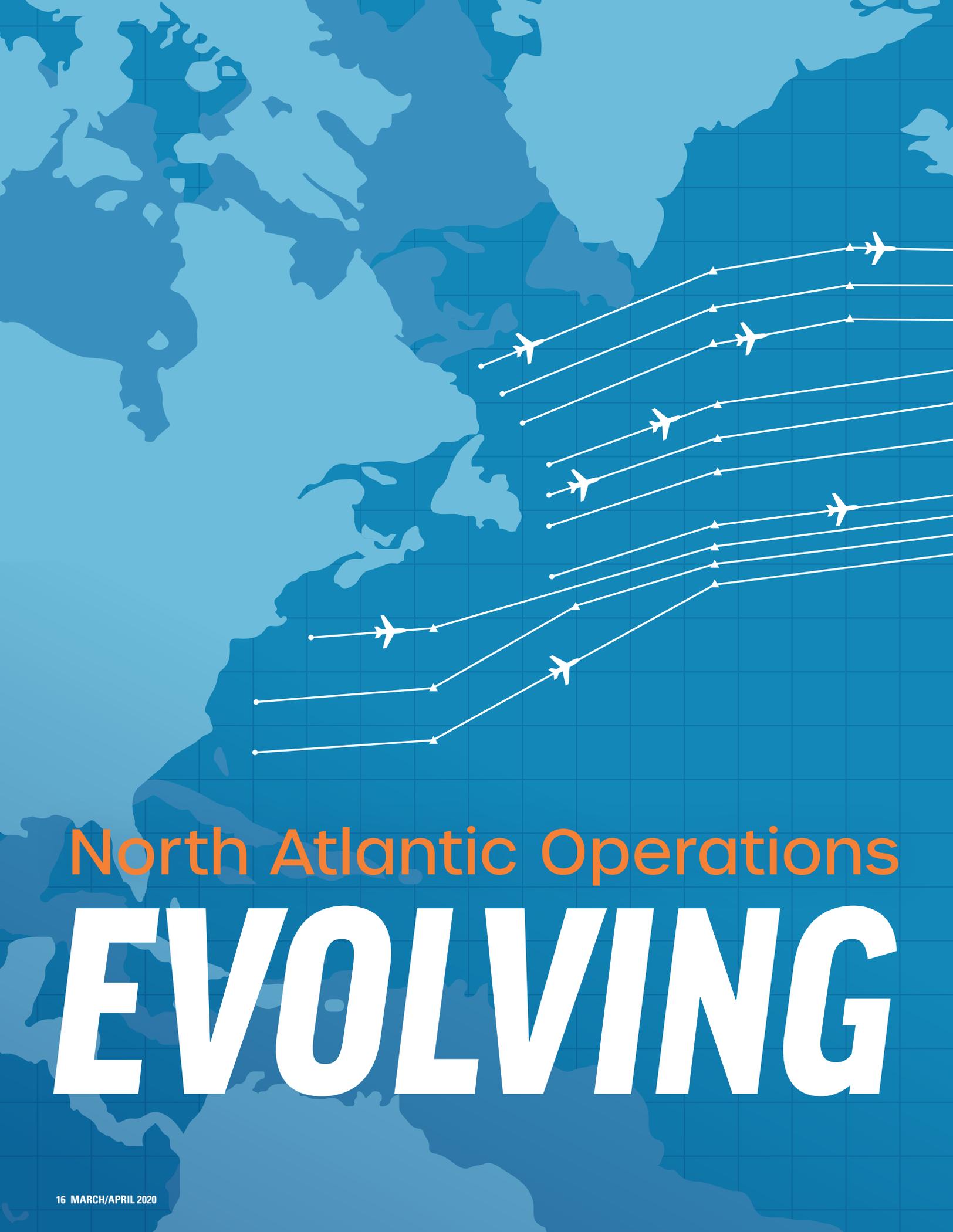
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North Atlantic Operations

EVOLVING



Reduced longitudinal and latitudinal separation is just one of numerous changes in transatlantic operations.

International navigation experts say the sheer number of new bulletins and document revisions regarding North Atlantic Track (NAT) operations are a clear indication of how much changed in this area recently, leaving some operators unaware of and unable to adapt to the changes.

“The 2019 changes had more to do with avionics than with airspace,” said Guy Gribble, general manager of International Flight Resources, LLC. “The better the avionics, the more airplanes we can get into the same airspace safely with less separation.”

However, one of the most significant changes to NAT operations in 2019 was reduced longitudinal and latitudinal separation through Advanced Surveillance – Enhanced Procedural Separation using space-based ADS-B. The trial, which began in early 2019, reduced separation by providing real-time surveillance in the North Atlantic airspace for the first time, but it also resulted in changes to contingency procedures.

“The changes to contingency procedures caught a lot of operators by surprise,” said Mitch Launius, owner and instructor pilot at 30 West IP. He suggests that operators should verify that their checklists and operations manuals reflect those changes.

Another 2019 change was increased “operations without an assigned fixed speed.” Although these operations are more common for airline traffic, the information released caused confusion for some business aircraft operators, according to Launius.

Finally, 2019 saw the adoption of “Micro SLOP” (Strategic Lateral Offset Procedure), which allows an

North Atlantic Operations

EVOLVING



aircraft to fly up to two nautical miles right of a track at 0.1-nautical-mile increments on self-selected lateral offsets.

NEW THIS YEAR

Beginning on Jan. 30, the datalink requirement for FANS 1-A expanded to FL290 to FL410 (inclusive) for NAT airspace.

“This will have a significant impact on GA operators if you don’t have datalink, or if datalink is currently inoperative,” said Launius.

“In 2020, pilots can expect to see fundamental changes in how they cross the North Atlantic,” said Gribble. “The year will essentially be the beginning of the dissolution of the organized track system.”

Current technology enables near-instantaneous communications between the pilot and the controller, which allows reduced separation between aircraft, but it requires each airplane to comply with a very narrow navigation specification.

Further, pilots might not receive oceanic clearances for NAT airspace in the future. The routing and clearance will come from the original flight plan. Upon entering oceanic airspace, the pilot will be asked to verify altitude and airspace. This will be similar to the procedures in place for NAT clearances when passing through New York Oceanic airspace.

A trial of this procedure is planned for this fall. Trials like these typically involve specific airlines, enabling a small group of operators to test the procedure before implementing the change for all users.

Tom Young – who represents the International Business Aviation Council (IBAC) on the NAT Procedures Operations Group and is a former controller at Gander, Newfoundland, specializing in oceanic navigation – said the clearance procedure currently under consideration makes perfect sense for pilots and controllers.

“In 2020, pilots can expect to see fundamental changes in how they cross the North Atlantic. The year will essentially be the beginning of the dissolution of the organized track system.”

GUY GRIBBLE

General Manager, International Flight Resources, LLC

One side effect of this reduced separation is the issuance of conditional clearances. A conditional clearance might be issued so that an aircraft can remain at a particular flight level until it reaches a defined location, then the pilot must climb or descend to a different flight level.

Experts caution that these conditional clearances increase a pilot’s risk of committing an error and – potentially – a violation, or reducing safety margins.

“You don’t get a new clearance when you fly from the U.S. to Canada, so why should you get a new clearance to fly over the ocean? This will reduce workload and improve efficiencies for both pilots and controllers,” said Young.

While some of these changes make it more difficult for business aircraft that only cross the Atlantic once or twice a year and may not be fully equipped to operate under these new requirements, those aircraft



aren't prohibited from crossing. They can still fly on the less-efficient northern Blue Spruce routes, as long as they have a letter of authorization and expanded ADS-B surveillance.

HOW TO KEEP UP

Most operators, especially Part 91 operators, only require international operations training every few years, or don't require international training at all.

Experts suggest that these operators consider increasing the frequency of international operations training or, to minimize costs, rotate pilots through international training each year, then require the pilot who attended training to formally share any updates or changes with the pilots who didn't attend. Also, whenever possible, use good crew pairing policies to ensure at least one pilot on each crossing has received international operations training within the last year.

"If you haven't attended international operations training since 2018 or even early 2019, you're behind," said Launius.

Of course, be sure to review your international operations manual before conducting international operations, and keep that document current. If you use a vendor for international operations manuals and procedures, make sure you receive updates in a timely manner, and then get that information in the hands of the pilots. Sometimes it can be helpful to talk with operators of the same aircraft type who have crossed recently.

Finally, avoid overconfidence.

"If you're completely comfortable with a North Atlantic crossing, that tells you how far off track you are," said Gribble, who has hundreds of North Atlantic crossings under his belt. "Do your research and review your procedures once, twice, three times. The margin for error is decreasing."

MORE CHANGES EXPECTED

In general, the North Atlantic flight operations are getting tighter, with more aircraft conducting operations in the same airspace. Better aircraft equipment – including RNP-2, space-based ADS-B, CPDLC and PBCS – basically allow for random routes across the Atlantic and eliminate the need for defined tracks. With 1,400-1,500 flights a day crossing the Atlantic, it makes sense for

regulators, controllers and operators to look for improvements that result in cost savings and fuel and time efficiencies.

As part of those efforts, Young explained IBAC's goal is to ensure suitable flight levels and routes for business aviation, especially since business aircraft flights tend to run opposite the traditional flow of traffic; that is, airlines tend to fly west to east overnight, while business aircraft tend to fly east to west overnight. This could result in less capacity for business aircraft and others operating against the flow.

"The changes in the North Atlantic are designed to assist all operators in achieving a more efficient, safe operation. So far, we have proven that expectation to be the result achieved. Expect these lessons learned to be applied to other major airspaces soon," predicted Shawn Scott, owner and instructor at Scott IPC. ✈

Review NBAA's North Atlantic resources at nbaa.org/nat.

KEEPING APPRISED OF NAT CHANGES

North Atlantic operational updates are generally provided to operators and pilots through two documents: North Atlantic (NAT) Operations Bulletins and the North Atlantic Operations Manual (NAT Doc 007). These documents are managed by the North Atlantic System Planning Group (NAT SPG).

In 2019, the NAT SPG published eight NAT Operations Bulletins – two simply informational in nature and six that had direct effects on operations. In addition, three changes were made in 2019 to NAT Document 007.

It takes some effort to keep up with these relevant North Atlantic operations documents. However, the NAT SPG publishes a NAT Ops Bulletin Checklist that identifies each current operations bulletin by subject and effective date. This checklist can help operators and pilots know which bulletins are currently in effect.

For more information, visit the ICAO website (icao.int) and search for "NAT Ops Bulletin Checklist."



SMART TECH STOPS

Security considerations and crew limits, as well as maintenance capabilities, are factors in identifying a good tech stop.



SMART TECH STOPS



The range capabilities of the latest intercontinental business jets are making the ability to fly nonstop between previously unreachable city pairs feasible. While this theoretically reduces the need to make tech stops, taking on fuel is only one of several reasons to land at least once before arriving at your final destination.

"As aircraft continue to offer more range, tech stops as we've always considered them will change," said Greg Hamelink, senior manager of flight operations and maintenance at Stryker Corp. "The challenge now becomes how long a crew is on duty, do you have supplemental crew that can travel with the aircraft, and does the crew have adequate ability to get acceptable crew rest? Even though the aircraft has the capability to stay airborne for 14-16 hours, the crew may not be able to, still forcing some form of tech stop to change out crews."

Indeed, not all tech stops are about fuel, notes BJ Ferro, senior demonstration captain for Bombardier Aerospace. With more than 19,000 hours flying business aircraft in the U.S. and internationally, Ferro knows that it takes forethought and planning to ensure that any stop made does not negatively impact the overall schedule.

"There are times when a tech stop is planned to change crews due to duty-time limitations, and considerations include the availability of proper airline service and accommodations should a change in transportation needs become necessary," Ferro explained. "By that, I mean an aircraft technical issue or having a passenger's needs change en route."

"The tech stop would typically be considered in the planning phase, with a flight planning vendor able to support the operation through its handling network," Ferro continued. "It reduces time on a tech stop when charges

and fees go through the planning vendor, which minimizes the requirement to carry cash for unexpected charges."

Hamelink, who regularly travels aboard his company's Bombardier Global Express and two Falcon 2000LXS aircraft as a flight technician/flight attendant, says maintenance contingency planning is an important part of determining where to make a tech stop. He says it's always wise to utilize the "call before you go" flight-following services that many manufacturers offer.

"After you provide them [an OEM] with your flight itinerary, they'll track your flight and notify their respective tech reps and service center facilities prior to your trip commencing," explained Hamelink. "If a technical issue should occur, you at least have resources already standing by if needed. This is pre-flight planning that is essential to a successful international trip, as knowing what maintenance resources that might or might not be available can help to mitigate the risks and difficulties of an unscheduled maintenance event."

SECURITY CONSIDERATIONS

When planning tech stops on international routes, the importance of considering the security of passengers, crews and the aircraft itself is critical. While decisions for available fuel and maintenance services need to be made, knowing what security resources are available at a planned stop – and any alternates – is an important part of pre-flight planning.

"Security when traveling internationally is always an issue at a tech stop or final destination," said Hamelink. "We evaluated a tech stop location in the past to determine what resources were available and changed that tech stop location because of the lack of service and security. This can include evaluating the handler at our tech stop or final destination,

FAVORITE TECH STOPS FLYING TO AND FROM ASIA

"I deal with FBOs on the West Coast regularly," said Scott Harrold, president of business development for SkyAviation International, "and tech stops are still prevalent. Many operators are still very happy with their Gulfstream IV/SP or G550, Challenger 300 and Falcon 7X aircraft. If coming from Asian gateway cities, a tech stop usually means just CBSA (Canadian Border Services Agency) or CBP (U.S. Customs and Border Protection) and some fuel if their flight plan takes them to the East Coast."

Harrold also said that Alaska is a very good tech stop location coming from Asia, and FBO services there are reliable. "Vancouver (YVR) is also a very good tech stop from Asia, as CBSA is very familiar with tech stops.

"Traveling westbound to Asia, the FBO at Athens International Airport (ATH) can be very reliable, depending on your arrival and departure times," added Harrold.

“Even though the aircraft has the capability to stay airborne for 14-16 hours, the crew may not be able to, still forcing some form of tech stop to change out crews.”

GREG HAMELINK *Senior Manager of Flight Operations and Maintenance, Stryker Corp.*

and we'll request a different handler with our trip provider at the same international destination based on the relationships they have with maintenance providers."

Hamelink pointed to a recent Asia trip, with Hong Kong as a planned stop on a multi-leg flight plan. "We utilize a service called International SOS, which can provide us with personal and corporate travel security assessments. From this due diligence, we learned of the civil unrest at our stop, specifically at the airport and also throughout town. After consulting with many resources, we encouraged our passenger to not make the stop. Each scenario is different, and most companies do their best to reduce risk when it comes to executive travel because no one wants to make the front page of the New York Times after a poor travel decision."

Ferro also emphasizes the importance of proper pre-flight security planning at any planned tech stops. His crews and company dispatchers use information and advisories provided through sources such as Medaire, the U.S. State Department and flight planning vendors.

"There are many ways to monitor situations around the world," Ferro said, "and when a stop or arrival is to a location determined to be of high uncertainty, that stop is eliminated from a flight plan if possible."

Scott Harrold, president of business development for SkyAviation International, emphasized the importance of networking with industry peers to stay in front of rapidly changing world events.

"Networking is key to international flight security, as it is the best learning tool you can get," declared Harrold. "I highly recommend attending the annual NBAA International Operators Conference scheduled for March 16-19 in Charlotte, NC (see sidebar), where we will thoroughly review every region around the world."

CHOOSING ALTERNATES WISELY

The need to plan for alternate airports is as important to determining the right tech stop location as it is to flight planning for a final arrival.

"They [alternate airports] are always important and not to be overlooked!" Ferro said. "Destinations with one runway should always be considered unavailable for a multitude of reasons – weather, unavailable runway, unexpected winds."

Hamelink said that "Plan B" tech stop options are important because "you don't want to be making a last-second decision for a tech stop while transitioning the North Atlantic."

With a well-thought-out tech stop plan in place, operators can mitigate many of the risks of international flying and execute a quick turnaround that will include topping off the fuel tanks and making sure the aircraft, crew and passengers have what they need to continue the flight safely, securely and comfortably. ✈

Review NBAA's international operations resources at nbaa.org/intl.

NBAA EVENTS FOR INTERNATIONAL OPERATORS

NBAA will offer two events in March that will provide important and timely information on international operations.

The 2020 Schedulers & Dispatchers Conference, to be held March 10-13 in Charlotte, NC, will include education sessions on flying to India, Africa, the Middle East, Mexico, Canada, Russia, China, Japan, Europe and South America. In addition, sessions on flight following and international regulations will be offered.

The International Operators Conference, scheduled for March 16-19 in Charlotte, NC, also promises to have a full slate of sessions that will provide detailed information on flying to various regions of the world.

nbaa.org/events

CULTIVATING A DIVERSE WORKPLACE

Encouraging diversity and inclusion in business aviation will help address the industry's workforce shortage.

The U.S. workforce is experiencing significant demographic changes at the same time that business aviation is experiencing a growing shortage of pilots, maintenance technicians and other aviation professionals. How can the industry adapt to these changing demographics and create positive workplaces for all employees by encouraging diversity and inclusion?

“In short, diversity is about how to get people in the door; inclusion is how to keep the top talent once you have invested in those same people,” says Tracie Carwile, sales manager of ground transportation at Universal Weather, as well as the first African-American and youngest member of the board of directors for Women in Corporate Aviation.



CULTIVATING A DIVERSE WORKPLACE

NBAA HAS D&I WORKING GROUP

A new working group of NBAA's Business Aviation Management Committee will focus on promoting diversity and inclusion (D&I) in business aviation.

One of the group's first goals is to create awareness about the need for diversity and inclusion in the workforce, explained Josh Mesinger, the Diversity and Inclusion Working Group's chair and Mesinger Jet Sales vice president.

"Diversity and inclusion initiatives result in better outcomes for flight departments and businesses alike," Mesinger said. "We also want to highlight the diversity that does exist in the industry."

"This new working group demonstrates the commitment of NBAA and its members to attract and retain a diverse and inclusive workforce," said Jo Damato, CAM, NBAA's vice president of educational strategy and workforce development. "In order to address these issues successfully, we need to extend our reach through effective partnerships."

A working group structure, rather than a subcommittee, was chosen intentionally, explained Damato, so members of all NBAA committees, as well as partners from other associations, can participate.

Review NBAA's D&I resources at nbaa.org/diversity.

PUSHING FOR A DIVERSE WORKPLACE

Generation Z, those people born after 1996, are now entering the workforce, eager to make their impact. These younger workers have been raised in a more culturally diverse world, and when looking at potential employers, they are not just expecting diversity and inclusion – they are asking for it.

Considering business aviation's continuing workforce shortage and the challenges inherent in retaining qualified aviation personnel, casting a wider recruiting net and ensuring company culture and policies lead to retention are critical to the industry's growth.

who sees teleworking, flex hours and variations in utilization as quality-of-life initiatives.

INCLUSIVE TEAMS MORE PRODUCTIVE

Diversity and inclusion are not just tools for attracting and retaining professionals; studies show that inclusive teams are more productive and effective than less-diverse teams. Two reports – McKinsey & Company's "Delivering through Diversity" and Forbes' "New Research: Diversity + Inclusion = Better Decision-Making" – back these claims.

For example, inclusive teams make better business decisions up to 87% of

"Meet people where they are to better understand how their unique perspective can provide value."

TRACIE CARWILE

Sales Manager, Ground Transportation, Universal Weather & Aviation

The most immediate challenge is retaining current workers. Anecdotal evidence suggests many women who leave aviation believe that the industry is not family-friendly, explained Kimberly Perkins, an international captain and safety officer, founder of Aviation for Humanity and a gender equality activist.

"Much like soft skills and emotional intelligence are the welcome wave of the future for measuring talent, the industry must adopt another cultural shift, this time with a focus on family-friendly initiatives," asserts Perkins. "Having a work/life balance isn't a women's issue – it's everyone's issue."

"We need to stop rewarding the 70-hour work week and instead get more creative on how to work just as effectively but more efficiently," continued Perkins,

the time. Teams that follow inclusive processes make decisions two times faster in half the meeting time. Also, there's a positive correlation between diversity and financial returns.

In addition, a lack of diversity can create a perception of business aviation as being elitist. And a more-diverse workforce creates a bridge to clients of different backgrounds and ethnicities.

MANAGERS CAN ENCOURAGE INCLUSION

Experts in diversity and inclusion suggest leadership is key to encouraging inclusion, and support from leaders is needed to create the right culture.

Communication is critical. Sometimes a company's initial challenge with inclusion is awareness – leaders may not know what

BY 2025, 75% OF THE WORKFORCE WILL BE MILLENNIALS AND GENERATION Z. BOTH GENERATIONS PLACE A HIGH VALUE ON CORPORATE RESPONSIBILITY, INCLUDING SOCIAL ENGAGEMENT.



their team members need to be productive and successful.

That is why leaders must be mindful of their team's needs and be open to conducting conversations about diversity and inclusion. Leaders must engage to identify the needs, then work to collectively and proactively address them.

Mentoring programs can also foster inclusion. These programs help new employees feel like part of the team and learn the organization's culture.

Perkins believes that company leaders must not only mentor employees, but they also must sponsor women and minorities to make impactful and lasting change throughout their organization and the industry.

"Truly great leaders empower their employees," declared Perkins. "They encourage individuals to collaborate and be advocates for diversity, inclusivity and equality."

"If your organization doesn't have a mentoring program in place, consider partnering with an organization in the same space that is already doing similar work," suggests Carwile.

WORKERS CAN ENCOURAGE INCLUSION

Promoting diversity and inclusion isn't solely the responsibility of leaders. Any business aviation professional can get involved by showing that inclusion is important to them and by advocating for those who might feel disenfranchised or unheard by the organization.

"Meet people where they are to better understand how their unique perspective can provide value," suggests Carwile. Breakfast or coffee meetings can help people get to know each other and understand each other's needs, which will organically extend to business initiatives, enabling increased collaboration and communication.

"Identify commonalities – that's how we get to inclusion," says Julius Ramos, an executive at FlightAware.

One of the first tasks is to counter stereotypes. Sometimes the targets of negative comments or jokes may be unwilling to challenge the person making such comments because the targets are new to the company, feel their job is threatened or are already disenfranchised in the

organization. However, peers can challenge those who make inappropriate comments. A non-confrontational approach might be to ask why the person making the comments feels they are funny. Some people are unaware of the impact of their words. Suggesting that such language is inappropriate might be enough to stop it.

"You don't need to be a minority to fight for equality. We need the majority (white men) to be our allies and stand up for all of us because it's the right thing to do and it's good for business. It's the most effective way to move toward equality," said Perkins.

"We need to empower people to be their authentic selves," declared Ramos. "Not only is it the right thing to do, but inclusion is critical to the growth of business aviation." ❖

Review NBAA's diversity and inclusion resources at nbaa.org/diversity.

S&D CONFERENCE TO FEATURE D&I PANEL DISCUSSION

A Business Aviation Insider-sponsored session at this year's Schedulers & Dispatchers Conference will delve deeper into the topic of diversity and inclusion.

On Friday, March 12 from 9 to 10:15 a.m., a session titled "Inclusion Drives the Future" will feature experts who will help participants understand and embrace cultural and societal differences, beliefs and values to increase cohesiveness at work. Review the full Schedulers & Dispatchers Conference program at nbaa.org/sdc.



Flying the Range

Business aviation has helped cattle dealer Capitol Land & Livestock succeed for 75 years.

By Lowen Baumgarten

Photos by Morgan Anderson Photography



Jim Schwertner, president and CEO of Capitol Land & Livestock, uses a Robinson R66 to survey his Texas cattle ranch.

Landing his Robinson R66 in the middle of his bustling cattle ranch in Schwertner, TX, Jim Schwertner is beaming. The president and CEO of Capitol Land & Livestock has just surveyed several hundred acres from the air, checking for downed fences, leaking troughs or sick cattle. Everything is okay.

Everything, in fact, is great. On this cold sunny morning, Schwertner is hard at work and right at home with his twin passions: cattle ranching and aviation.

"I've loved airplanes since I was six years old," says Schwertner. "My father had me out riding in the fields. I'd look up at a plane passing overhead, and I wanted to be up there. My father did too, but for a different reason: he loved airplanes because they were good for business."

town of Schwertner, eventually setting up a mule auction.

Eugene Schwertner, Jim's father, started his career as a cattle buyer, working on commission before opening one of the first public cattle auctions in Austin in 1946.

"When my father heard a rancher had cattle for sale in Laredo [TX] or Shreveport [LA], he would go out to the old airport in downtown Austin and charter a Piper Comanche from Browning Aerial Service," explained Jim Schwertner. "He'd fly out there, and all his competitors would drive, taking six or eight hours [to get there]. My dad had already come and gone."

Growing up, Schwertner saw the edge aviation gave his father. "Business

"Business aviation is a big part of what keeps us successful. I don't know where we'd be today without it."

JIM SCHWERTNER

President & CEO, Capitol Land & Livestock

Every day, Capitol Land & Livestock buys and sells cattle in a dozen states, from Florida to California, often using a Cessna Citation CJ2 to get to ranchers, auctions and feedlots before other cattle dealers can.

The helicopter flies at least twice a week; however, the company's history with aviation goes back to its founding nearly 75 years ago.

FAMILY HERITAGE

Jim Schwertner's great grandfather immigrated to the United States in 1875, settling north of Austin, TX, where the dark soil matched that of his native Germany. His family founded the Texas

aviation was my dad's secret weapon," he said. "He could get to the cattle before everybody else."

As his business grew, Eugene opened cattle auctions all across East Texas and encouraged Jim to pursue his passion for flying. Jim started his pilot training at 14, soloed on his 16th birthday and had his license a year later. Before leaving for college, he had already flown his father to buy cattle. Eventually, his father bought a Piper Aztec and Jim joined the business as a cattle buyer and pilot.

COWBOY INNOVATION

For a couple months after Jim joined the company, everything was great. Then the

MEMBER PROFILE



Schwertner flies his Citation CJ2 approximately 250 hours a year in support of his cattle brokerage business.

economic turmoil of the 1970s upended the cattle industry.

"I was just out of college, and the cattle market cratered," recalled Schwertner. "Three-quarters of my father's customers went broke. We had to completely change our business model."

Working with a professor at Texas Tech, Schwertner developed an algorithm to manage risk as a cattle day trader.

"It really saved our company," said Schwertner, "because the new players buying cattle and the feedlots wanted to know the exact price right then to hedge their orders."

To make the new business model work, Schwertner had to meet a lot of feedlot farmers and convince them face-to-face.

"That's what I love about this business, it's all done with a handshake," he says.

Schwertner began flying not only to meet ranchers, but also to feedlots buying cattle in Amarillo, TX; Lincoln, NE; Garden City, KS; Hope, AR; and as far away as Brawley, CA. His father sold the Aztec, moving up to a Navajo Chieftain and, by the 1990s, an Aero Commander.

"Business aviation was my dad's secret weapon. He could get to the cattle before everybody else."

JIM SCHWERTNER *President & CEO, Capitol Land & Livestock*

After 35 years, Capitol Land & Livestock still runs on that same algorithm for day trading.

"We're open 24/7," said Schwertner, "We buy cattle from all over the country, bring them here at night. It's a hub-and-spoke system. The next day, we ship them all out and start over."

Capitol Land & Livestock buys 40 different types of cattle and sorts them by size, loading them every day onto a fleet of 50 owned and leased cattle trucks. With a team of 150 cowboys, scouts, salespeople and drivers spread across the country, Capitol Land & Livestock goes to 225 cattle auctions every week.

"We do \$3 million of business a day," says Schwertner. "We turn over 100 percent of our inventory every 24 hours, so it's a real fast-paced business."

SAFER TOGETHER

To keep up with that fast pace, Schwertner traded up to a Cessna Citation CJ1 in 2011 and then a CJ2 in 2017. He flies up to 250 hours a year, almost exclusively for the business. His average business trip length is about 650 nautical miles.

With more than 8,000 flight hours in his logbook, Schwertner is committed to staying current and proficient. In 2018, he received the FAA's Master Pilot Award. On about half his flights for the cattle trading business, Schwertner flies with a lifelong friend, Tim Casey, a retired business aviation pilot with more than 20,000 hours.

"We've flown together for nearly 50 years," said Schwertner. "If the weather is going to be hard, or if I'm going to a

Since Capitol Land & Livestock buys and sells cattle 24/7, Jim Schwertner (center) and his associates stay busy in this fast-paced industry.



high-traffic area like Chicago or the East Coast, I'll see if he can ride with me. Also, if I know it's going to be a stressful day when I'll be focused on my business, I'll take another pilot."

When he was 50 years old, Schwertner started learning to fly helicopters. Like many rotary wing aircraft students, he learned in a Bell 47 trainer, but the transition from fixed wing to rotary wing was much more challenging than learning to fly the jet.

"My instructor told me that airplane pilots are the worst helicopter students, because you have to undo all the muscle memory you have from flying fixed wing, and he was exactly right," said Schwertner. "I didn't feel comfortable flying the helicopter at first."

HANDS ON THE REINS

Indeed, learning to fly helicopters is often challenging for fixed-wing pilots. When fellow airplane pilots asked Schwertner what is similar between a helicopter and an airplane, he would respond: "As far as I can tell, the radios and nothing else."

Learning to fly a helicopter was challenging, but eventually Schwertner earned his commercial certificate and became comfortable in a rotorcraft. Now, he flies his Robinson R66 twice a week to survey the ranch's 20,000 acres. The territory that took his father five or six days to survey, Jim Schwertner can do in a single afternoon. Sometimes, he even helps the cowboys find stray calves from the air.

"It's a real tool for me in our business," says Schwertner. "Business aviation is a big part of what keeps us successful. I don't know where we would be today without it." ❖

Learn more about Capitol Land & Livestock at cllnet.com.



LEARNING FROM A LEGEND

When he was 14 years old, Jim Schwertner started taking flying lessons, but not from just any instructor. He learned from aviation pioneer and grande dame of the general aviation industry in Texas, Emma Carter Browning.

Browning was the longtime president of Browning Aerial Service, the historic and widely regarded FBO on Austin's former Robert Mueller Municipal Airport. She took her first flight in 1929, after meeting at a Texas air show the barnstorming aerobatic pilot who would later become her husband. She flew for another 74 years, but devoted much of her time to running the FBO – one of the first and only women presidents of a general aviation business in that era.

"She was a special lady," recalls Schwertner. "She was on a first-name basis with Charles Lindbergh and Amelia Earhart. I had the best teacher you could ever have, and she was my instructor for 30 years. I went back to her for my recurrent training every year until I was about 45."

Although Robert Mueller Municipal Airport eventually closed and the FBO was sold to Signature Flight Support, the Browning Aerial Service's arched wooden hangar still stands in the middle of Austin's Mueller Lake Park. And the iconic sign that stood for years in front of that arch now adorns the wall of Schwertner's hangar in Georgetown, TX, a treasured memorial and gift from Browning.

SNAPSHOT: CAPITOL LAND & LIVESTOCK



Aircraft: A Cessna Citation CJ2 and a Robinson R66

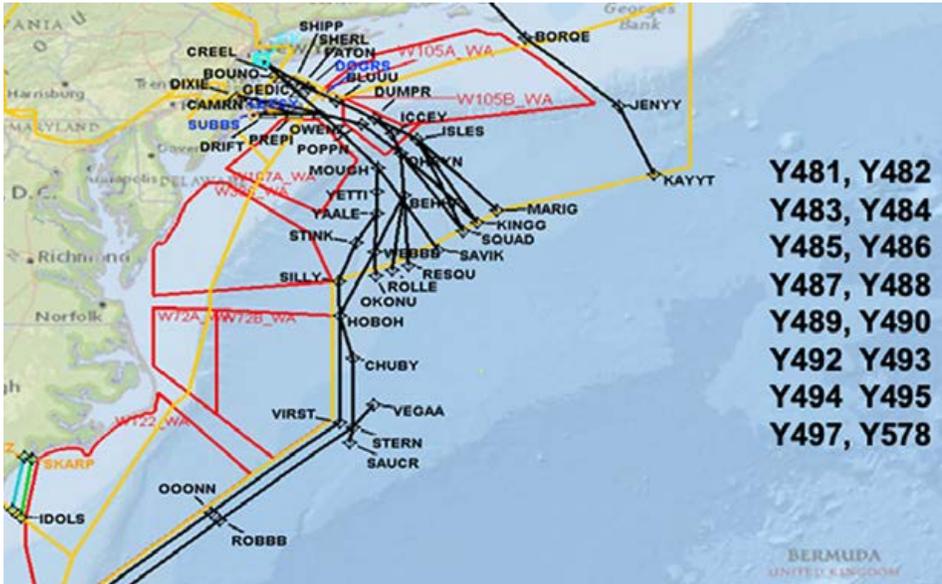


Base: Based at Texas' Georgetown Municipal Airport (GTU)



Personnel: Jim Schwertner is the owner/operator and pilot

OPERATIONS



Air Traffic Services: East Coast Airspace Changing for the Better

Business aircraft pilots who typically fly along the U.S. East Coast are quite familiar with the congestion and delays that can affect their flights.

Relief is on the way, however, as the FAA starts implementing sweeping changes this year to the airspace along the Eastern Seaboard.

Among the FAA's goals for the Northeast Corridor Atlantic Coast Routes (NEC ACR) optimization project are:

- Enabling greater use of offshore route options, particularly during Severe Weather Avoidance Plan (SWAP) operations
- Reducing offshore vectoring and holds
- Better segregating overflight traffic from busy arrival and departure corridors into New York and Washington, DC.

Vicki Turner, FAA co-lead on the project, said the NEC ACR brings several regional airspace projects along the East Coast under a common effort.

"During the design of these new routes, controllers at Washington, New

York, Boston, Jacksonville and Miami identified opportunities to improve traffic flows on the east coast," explained Turner. "This was accomplished by creating more 'lanes in the sky' so that the multiple airports are not competing for the same flight path."

Ernie Stellings, senior manager at NBAA Air Traffic Services, noted these optimizations will directly benefit business aviation operations.

"This may be the biggest route change in 50 years; the Eastern Seaboard is the most congested airspace in the country, and it's all being redone."

ERNIE STELLINGS

Senior Manager, NBAA Air Traffic Services

"For example, we'll see a new 'super ultra-high' ATC sector over Washington, DC that will reduce airspace restrictions and closures for traffic crossing the area above FL400," said Stellings. "The ability to create this new sector will give us some more capacity along the East Coast, especially during the peak season time."

Operators will see many changes ahead of the optimization project's targeted November 2020 completion date. All J-routes from Florida were slated to be replaced by Jan. 30. By the end of March, operators may expect to see amended SID procedures from most major airports in the Eastern U.S., with new and revised STARs expected to follow in late May.

Building on lessons from last year's South-Central Florida Metroplex project and similar efforts, the FAA also met over the past several months with key NEC ACR stakeholders, including NBAA, to outline milestones and ensure operators are aware of these changes beforehand.

"One thing we learned from the Florida metroplex team was to publish the key routes one [charting] cycle ahead of actually implementing them," said Joseph Tinsley, FAA co-lead on the project for the National Air Traffic Controllers Association. "We discussed this with NBAA and other stakeholders on the project so that the 8,000-plus routes could be in their dispatch systems prior to the day of implementation."

Stellings noted that the FAA also is working with flight planning services used by business aircraft operators to make sure they have time to make the necessary alterations to aeronautical charts prior to the targeted implementation dates.

"The FAA hopes to improve routing and decrease operational complexity through the nation's busiest airspace," he concluded. "This may be the biggest route change in 50 years; the eastern seaboard is the most congested airspace in the country, and it's all being redone." ❖

Review NBAA's air traffic services resources at nbaa.org/ats.



PHOTO © MORGAN ANDERSON PHOTOGRAPHY

Maintenance: Flight Techs Indispensable on Overseas Trips

Flight departments have long known the value of employing flight technicians to accompany their aircraft on extended – usually international – trips. The position, combining the roles of aircraft maintenance technician (AMT) and flight attendant (FA), enables companies to minimize aircraft-on-ground (AOG) situations while also providing important safety and customer service benefits in flight.

"Some AMTs prefer to just turn wrenches, but I love being able to perform both roles, and I'm proud to represent my company to our passengers," said Creighton Anderson, flight engineer and crew chief for AbbVie Pharmaceutical.

Kevin Van Strum, a maintenance technician for a single-aircraft Part 91 flight department, said the advent of in-flight internet drove the need for an onboard flight technician at his company.

"We had two AMTs to maintain the aircraft, but no one flying with the aircraft," explained Van Strum. "When passengers would experience connectivity or device issues while in flight, it only made sense

to have a dedicated person onboard who could monitor and maintain the internet connection, as well as perform FA duties as required."

As always, flight technicians are particularly valuable when AOG events occur away from home base. Both Anderson

"I believe the greatest benefit in having a flight technician onboard is that we allow the flight crew to focus on their job... by not having to get involved with maintenance or cabin duties."

KEVIN VAN STRUM
Maintenance Technician for a Part 91 Flight Department

and Van Strum frequently utilize OEM parts and service networks to facilitate aircraft repairs in those situations.

"The manufacturer wants to get us back in the air as soon as possible, so they are motivated to give onsite technicians their support as necessary to help troubleshoot problems and expedite repairs," Van Strum said. "I believe the greatest benefit in having a flight technician onboard is that we allow the flight crew to focus on their job and perform more effectively by not having to get involved with maintenance or cabin duties."

Anderson recalled a trip during which one of his aircraft's environmental control "packs" failed prior to a scheduled international departure. "I called the OEM and, with their guidance, worked through the issue. We determined the pack could be MEL'd (the aircraft's minimum equipment list allowed departure with just one of two environmental packs functional), so we were able to get the aircraft home."

Given the diverse requirements of the position, Van Strum emphasized the importance of training to maintain his diverse skills as a flight technician. This year, he coordinated his emergency procedures training and maintenance training during a single visit to FlightSafety International. He completed his in-flight medical training through MedAire.

"I wear a lot of hats, and it's important to keep up, not only on required training, but also by learning 'niche' skills that make you even more valuable," said Anderson. "I've completed recurrent training on in-flight wireless internet systems and attended FlightSafety for my aviation electronic technician certification. I've also had culinary etiquette training on how to plate food and create whole meals from just soup and bread."

Both men spoke enthusiastically about their jobs. "I actually learned about this opening five years ago through NBAA," Anderson said. "There are certainly stressful aspects to it, but this is a cool job." ❖

Review NBAA's resources for flight attendants and flight technicians at nbaa.org/fa.

MEMBER CENTRAL



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Introducing '6 Months to CAM'

Since its launch, NBAA's Certified Aviation Manager (CAM) program has recognized more than 500 business aviation professionals as industry leaders through a rigorous certification course covering five subject-matter domains. This certification helps organizations identify future business aviation leaders and enables employers to retain top talent through continuous professional development.

Now, NBAA is introducing a new initiative – called 6 Months to CAM – that will provide CAM candidates with the necessary tools to help them prepare for the CAM exam. The preparatory course, previously taught in person, has now transitioned to an online format in order to reach a broader group of people and provide digital study opportunities for CAM candidates.

According to Tyler Austin, NBAA's senior manager of certification, "This new initiative will give candidates the right tools they need to thoroughly prepare for the CAM exam."

The content and exercises in the online

The new course will offer extra sample questions, study tips and best practices for test-taking.

preparatory course will be specific to the five CAM domains: Leadership, Human Resources, Operations, Technical and Facilities Services, and Business Management.

The new course also will offer extra sample questions, study tips and best practices for test-taking.

In addition, participants will be able to connect with others who are taking the course, expanding their professional networks while providing an opportunity to ask each other questions about CAM course material. ❖

Learn more about NBAA's CAM program at nbaa.org/cam.



Member Benefits

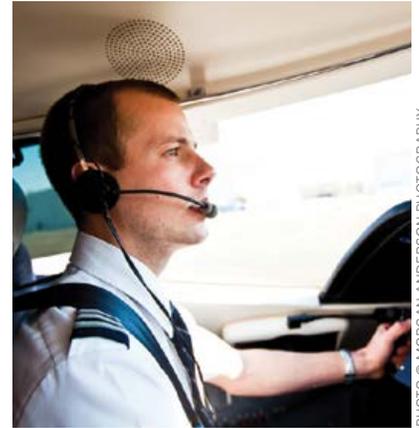


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SAVINGS ON IS-BAO MATERIALS

NBAA members are eligible for \$450 in savings on the International Standard for Business Aircraft Operations (IS-BAO) manual, which includes a comprehensive safety management system (SMS) toolkit. Members may order IS-BAO materials through a secure form on NBAA's website. nbaa.org/is-bao

UPDATED FEDERAL EXCISE TAXES GUIDE NOW AVAILABLE

NBAA's Federal Excise Taxes Guide, which has been updated with tax rates for calendar year 2020, is a comprehensive reference that provides NBAA members with summary information about the applicability of excise taxes to common business aircraft operations and scenarios. nbaa.org/fet

DEDICATED TO HELPING BUSINESS ACHIEVE ITS HIGHEST GOALS.



INTERNATIONAL OPERATORS CONFERENCE

NBAA's International Operators Conference (IOC2020) will bring together flight department personnel, trip planners, FBOs, and international handlers for four incredible days in Charlotte, NC. Register today for this incredible conference where you will receive critical updates on avionics, security, North Atlantic airspace, ICAO, contingency procedures and more!

March 16-19

2020

CHARLOTTE, NC

nbaa.org/ioc/2020

REGISTER TODAY



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Upcoming Events

MAKE GLOBAL CONNECTIONS AT IOC2020

The 2020 International Operators Conference (IOC), scheduled for March 16-19 in Charlotte, NC, is a can't-miss event for operators that fly internationally. Connect with more than 600 other attendees for four days of powerful education, with dynamic speakers and insightful panel discussions. In addition to sessions reviewing important information on all eight regions of the globe, the following sessions will focus on other topics of interest:

- Do-it-yourself international trip planning utilizing today's technology
- International stay out of jeopardy
- Attracting and retaining international pilots
- Effective communication and mental well-being
- Ask the experts

nbaa.org/ioc

SDC2020 COMING TO CHARLOTTE

Stay up to date on the latest operational information critical to your job function at the 2020 Schedulers & Dispatchers Conference (SDC), to be held March 10-13 in Charlotte, NC. Join more than 2,900 of your peers from all 50 states and more than 47 different countries for networking and high-quality education sessions. Explore the latest product and service offerings, connect with new vendors and get face time with your customers in the exhibit hall.

The event will feature for the first time a Professional Member Lounge featuring WiFi, refreshments, comfortable seating and a semi-private meeting space for NBAA Professional Members. If you are not already a Professional Member, you can add an affiliated Professional Membership for only \$25 by logging into your existing member profile and clicking "Join NBAA" in the top right-hand corner. nbaa.org/sdc

New Certified Aviation Managers

Gary Collins, CAM
Pilot

Gary Ernst, CAM
Aviation Captain
Novant Health

Brian Ruda, CAM
Sr. Captain
Noble Energy, Inc.

Bill O'Brien, CAM
Captain
Jet Aviation

More than 500 business aviation professionals from all segments of the industry have earned the Certified Aviation Manager (CAM) credential. The people listed here are the latest people to join this elite group of business aviation professionals.

PREPARE FOR TAX SEASON WITH NBAA

Anyone involved in business aircraft financing, transactions, operations or tax planning won't want to miss the 2020 Business Aircraft Finance, Registration & Legal Conference. The event is slated to take place March 22-24 in Amelia Island, FL. Attendees will hear from experts in aviation finance, aircraft utilization options, regulatory topics, tax planning and risk management. With business aviation having a global footprint, this is the best event to learn about strategies for managing complex international aircraft transactions.

nbaa.org/frlc

NEXT NBAA REGIONAL FORUM WILL BE IN SAN JOSE

The second of NBAA's 2020 regional forums will take place March 5 at Norman Y. Mineta San Jose International Airport (SJC).

The one-day event will bring together current and prospective business aircraft owners, operators, manufacturers, customers and other industry personnel. In addition to displays of aircraft and aviation products and services, the forum is slated to feature a series of education sessions that will examine ADS-B and privacy, urban mobility, fatigue risk management and sustainable aviation fuels. nbaa.org/forums

Professional Development

These professional development courses will be held in March & April. nbaa.org/pdp

FUNDAMENTALS OF IS-BAO

This workshop, held in conjunction with the International Operators Conference in Charlotte, NC, on March 20, will help attendees better understand the International Standard for Business Aircraft Operations (IS-BAO) and safety management systems.

AVIATION HUMAN FACTORS

This human factors course, which is to be held on April 1 at NBAA headquarters

in Washington, DC, will focus on how human performance affects business aviation operations and how operators can take steps to reduce human errors.

LEADING WITH A VISION

This one-day workshop, to be held on March 10 in Charlotte, NC, will teach attendees how to inspire their coworkers by creating a personal leadership vision. The course will help participants identify the communication skills needed to increase connection with other people and provide guidance on how to work and lead in alignment with your core values.



Events Calendar

March

March 5
Regional Forum • San Jose, CA

March 10-13
Schedulers & Dispatchers Conference
• Charlotte, NC

March 16-19
International Operators Conference •
Charlotte, NC

March 22-24
Business Aircraft Finance, Registration
& Legal Conference • Amelia Island, FL

May

May 5-7
Flight Attendants/Flight Technicians
Conference & Maintenance
Conference • Hartford, CT

May 20-21
Security Conference • White Plains, NY

May 21-22
Business Aviation Taxes Seminar •
White Plains, NY

May 26-28
European Business Aviation
Convention & Exhibition (EBACE2020) •
Geneva, Switzerland

June

June 10
White Plains Regional Forum • White
Plains, NY

NBAA.ORG/EVENTS

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The Future of Critical-Care Global Response

MedAire's Joan Sullivan Garrett says communication remains vital to medical emergency response.

When critical-care flight nurse Joan Sullivan Garrett founded MedAire in 1985, defibrillators and emergency medical kits were not standard equipment on commercial or business aviation flights. Additionally, “flight attendants had minimal medical emergency training and were not required to learn CPR. They didn’t even have something as simple as gloves for responding to a medical crisis,” says Garrett, who recognized the need for a professional emergency response company.

MedAire has pioneered critical-care medical response utilizing state-of-the-art equipment and trained medical and security professionals to serve the aviation and maritime industries. Garrett is credited with prompting the FAA to issue a rule in April 2004,

requiring U.S. airlines to carry on board automated external defibrillators and enhanced emergency medical kits, and she is a recognized expert in global health and medical subjects.

“My best advice is still to be vigilant. Educate your travelers, be proactive... and wash your hands!”

Looking forward, Garrett is excited about AI and robotic technologies that will enhance lifesaving products and services for aviation, and the onboard use of smaller and lighter medical devices, such as EKG machines, defibrillators and innovative oxygen units. Potentially life-saving medicines – such as naloxone, glucagon, and epinephrine – are available in nasal-spray form, which make them much easier for flight crews to administer. A passenger’s medical records, now usually digitized, can be quickly accessed and transmitted from the air, and telemedicine is ideally suited for en route use. More specialized onboard emergency kits, such as for pediatrics, are being used.

“Ultimately, however, we are still dealing with human beings. Passengers and crew need to communicate and know what to expect,” says Garrett. “We have more longer-haul flights, and to more countries with safety and security concerns. We also have more people working later in life, so that’s also a consideration.

“My best advice is still to be vigilant. Educate your travelers, be proactive, be aware of emerging concerns like pandemics, and wash your hands!” ❖

JOAN SULLIVAN GARRETT is the founder of MedAire, the first aviation global medical emergency response company; a former NBAA director; the 2017 NBAA Meritorious Service to Aviation Award recipient; and a 2020 inductee in the National Aviation Hall of Fame.





Cancer Patients Fly Free

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Corporate Angel Network arranges free travel on corporate aircraft for cancer patients traveling to and from treatment. Business jet travel makes it possible for patients, especially those in locations with minimal airline access, to travel to specialized medical centers.

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-Henry Maier, President and CEO, FedEx Ground

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