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OCTOBER 2026 | Vol. 55 No. 10 | AINonline.com

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News Briefs

APOLLO ACQUIRES MAJOR STAKE IN ATLANTIC AVIATION

U.S.-based private equity company KKR has sold a “significant interest” in its Atlantic Aviation holdings to global asset manager Apollo Funds. KKR acquired Atlantic—one of just two FBO mega-chains in the industry—from longtime owner Macquarie Infrastructure in 2021 for nearly \$4.5 billion. At the time, the service provider had 69 locations in the U.S. Under KKR’s stewardship, it has since grown to more than 100. While KKR remains a substantial shareholder, the transaction values Atlantic Aviation at nearly \$10 billion.

SYBERJET SJ30-2 SETS TRANSCONTINENTAL RECORD

A SyberJet SJ30-2 twinjet set an east-to-west U.S. transcontinental speed record on a flight from Jacksonville, Florida, to San Diego. According to SyberJet Aircraft, the light jet averaged a speed of 505.3 mph over its flight time of 4 hours 7 minutes, with Gordon “Gordy” Bryan at the controls and company CEO Trevor Milton on board. This tops the previous C-1.f class record of 339.4 mph, set by an Embraer Phenom 300 in 2013. The SJ30-2 underpins SyberJet’s in-development SJ36, which is slated for FAA certification in 2032. SyberJet expects the SJ36 to have a 3,000-nm range and Mach 0.88 cruise speed.

HONDA AIRCRAFT UNIT BACKS THRIVE FRAX PROGRAM

Thrive Aviation is moving into fractional ownership through a strategic partnership with, and minority investment from, Honda Aircraft subsidiary Arulean Air. Under the arrangement, Arulean Air will purchase aircraft for the program while Las Vegas-based Thrive handles everything from flight operations to client relationships. The fleet will launch with the HondaJet HA-420 and Bombardier Challenger 3500, and owners can also tap the more than 30 aircraft Thrive already operates as their needs change.



Pilatus boosted deliveries of its single-engine PC-12 turboprop by 72% in the first half of this year compared with the same period last year, fueling a surge in the high-end turboprop segment.

Bizjet, turboprop, and rotorcraft deliveries climb

BY CURT EPSTEIN

Business jet deliveries for the first half of the year rose by 8% compared with the same period in 2025, while turboprops saw a more than 26% increase and turbine helicopter shipments grew by 3.3%, according to the latest report from the General Aviation Manufacturers Association (GAMA). Total airplane billings jumped by 15.5% to \$14.3 billion for the first six months of the year.

Embraer led the major private jet OEMs with a 21% increase in deliveries compared with last year’s first six months. The Brazilian manufacturer handed over seven more of each of its Phenom 300Es and Praetor 500s, on its way to 74 aircraft delivered. Gulfstream Aerospace surpassed its first-half 2025 tally by five aircraft. Dassault remained nearly static, exceeding its total of 12 Falcon jets in first-half 2025 by one unit.

Bombardier and Textron Aviation both saw downturns in their deliveries year over year. The former handed over five fewer Challengers, for a 5% overall decrease, while Textron Aviation was down this year in all its jet products except for the Cessna Citation CJ3+ and super-midsize Citation Longitude, which was up by five aircraft.

For light-jet manufacturers, Cirrus posted a 27% increase in deliveries for its single-engine SF50 Vision Jet, handing over 57 this year. Pilatus, which delivered 17 PC-24 twinjets in the

first half last year, tacked on one more this year, as did Honda for five HondaJets.

On the turboprop side, the airframers delivered 184 airplanes, compared with 146 a year ago. Pilatus led the charge, delivering 18 more PC-12s during the first half, while Epic more than doubled the number of E1000s it handed over, increasing to 15. Daher added four aircraft in its 2026 delivery total of 37. Kodiak deliveries remained static, but the TBM line increased with the introduction of the TBM 980. Likewise, Piper improved with three additional M600s and M700 Furies.

While Textron Aviation saw fewer deliveries of its Caravan/Grand Caravan single-engine airplanes, the Wichita-based airframer compensated with the King Air family, for a total of 62 turboprops. Piaggio delivered two of its twin-engine Avanti Evos so far this year, doubling its first-half 2025 output.

Deliveries in the turbine rotorcraft segment were up 3.3% compared with the first half of last year. Leonardo Helicopters saw the largest increase (15.7%). Airbus Helicopters reported a nearly 8% year-over-year improvement, delivering 142 units this year.

On the downside were Bell, which was off by just over 8%, and Robinson Helicopter, which handed over 30 single-engine R66s, six fewer than it did in the first six months last year. ■

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News Briefs

ROHLOFF TEXTRON AVIATION CEO AS DRAPER RETIRES

Textron Aviation president and CEO Ron Draper retired in late August after eight years as leader of the Wichita-based aircraft manufacturer and 27 years at parent company Textron Inc. Brian Rohloff, senior v-p of customer support, succeeded him as president and CEO of Textron Aviation effective August 31.

Draper will remain with the company until year-end to support the transition. Rohloff has held other leadership roles at Textron Aviation, including v-p of quality and v-p of sales.

ROBINSON R66 CHOSEN AS NEW U.S. ARMY TRAINER

Texas-based M1 Support Services beat close rival Bell Textron in a tightly fought competition to become the U.S. Army's next Initial Entry Rotary-Wing training provider, with a bid built around the Robinson R66 single-engine turbine helicopter. Under the fixed-price contract, worth \$10 billion over as many as 26 years, M1 will supply all aircraft, maintenance, simulators, flight and academic instruction, and related support. Part of the Army's Flight School Next initiative, the contract shifts initial helicopter pilot training to a contractor-owned, contractor-operated model designed to train 800 to 1,000 Army candidates a year.

AUSTRALIA MOVES TO CLARIFY RULES FOR BIZAV OPS

The Australian Civil Aviation Safety Authority (CASA) proposes creating new classifications for "business transport" and "owner transport" operations to keep them from inadvertently being classified as air transport operations requiring a Part 119 air operator certificate (AOC). Business- and owner-related flights are currently classified as commercial air transport operations requiring an AOC. The proposal would regulate these private operations differently from commercial air transport and replace a temporary exemption with a permanent regulatory framework.



Embraer says its Phenom 300EV, which just received certification from the FAA, EASA, and ANAC, is the largest business jet cleared to use Garmin's Emergency Autoland system.

Autoland-equipped Phenom 300EV wins trio of approvals

BY CHARLES ALCOCK

Brazilian, European, and U.S. aviation regulators have all now approved the Embraer Phenom 300EV, making it the first light jet certified with the Garmin Emergency Autoland system. The triple FAA, EASA, and ANAC certifications came only a month after Embraer announced the 300EV in July. Deliveries of the model are slated to start in late 2028.

Other improvements to the latest Phenom model include an autobrake, a rudder-by-wire system, more payload and range, and an updated galley. Gogo Galileo connectivity is also available as a factory option.

According to the Brazilian manufacturer, the Phenom 300EV is the largest

business aircraft so far equipped with Garmin Emergency Autoland, which autonomously flies the jet safely to the nearest suitable airport in the event of pilot incapacitation.

To support these automated control functions, Embraer has developed its own Multipurpose Electronic Controller (MEC), which enhances handling, reduces pilot workload, and simplifies maintenance. The MEC also controls the rudder-by-wire system.

The Phenom 300EV has an increased range of up to 2,055 nm with up to four passengers and NBAA IFR reserves. This enables nonstop flights such as New York to Aspen and Dubai to the Maldives. ■

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Bombardier acquiring MHI aerostructures supplier

BY KERRY LYNCH

Bombardier inked an agreement with Mitsubishi Heavy Industries (MHI) to acquire the assets of MHI Canada Aerospace Inc. (MHICA), located in Mississauga, Ontario, the companies announced on September 1. Terms of the transaction, which is subject to regulatory approvals and customary conditions, were not disclosed.

Anticipated to close later this year, the transaction will expand Bombardier's aerostructures capability, adding a team of 750 employees and bringing in-house component work for the Global 5500/6500 and Challenger 3500 programs. Operating a 270,000-sq-ft manufacturing facility and a 70,000-sq-ft logistics center, MHICA handles aerostructures and other components such as wing assemblies, fuselage sections, and flight control installations.

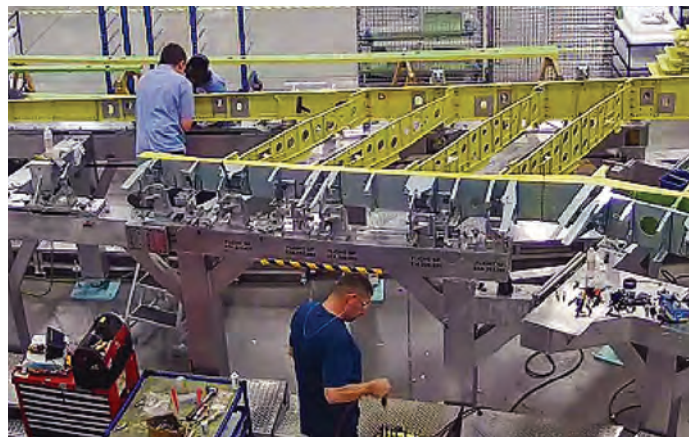
"This agreement represents a key step in Bombardier's long-term growth strategy, strengthening critical capabilities, enhancing operational resilience, and supporting the company's flexibility to meet growing customer demand," said David Murray, executive v-p of manufacturing, supply-chain execution, and Bombardier operational excellence systems. "MHI Canada Aerospace has built a highly respected

operation with a talented and experienced team. With this acquisition, we are deepening our core manufacturing expertise as well as our commitment to proactively develop the local workforce through multiple streams in component manufacturing and whole aircraft assembly."

Plans call for Bombardier to work with MHI to ensure an orderly transition and continuity of aircraft programs. This support is anticipated to continue for an interim period following closing.

"We are proud of what our employees have achieved at MHICA and of the important contributions they have made and will continue to make to these aircraft programs," said Hiroyuki Koguchi, executive v-p, head of commercial aviation systems at MHI. "This agreement ensures a bright future for our employees, whose skill, dedication, and expertise have been central to MHICA's success."

The transaction is in line with Bombardier's approach of investing in strategic capabilities to support long-term priorities, strengthening its manufacturing footprint and supply chain, added Sandra Hodgkinson, senior v-p of strategy and M&A at the company. ■



MHI Canada Aerospace, located in Mississauga, Ontario, provides structures for the Global 5500/6500 and Challenger 3500 programs.

News Briefs

PILATUS CONSOLIDATES COMPOSITES PRODUCTION

Pilatus Aircraft has opened a CHF100 million (\$123 million) facility in Nidwalden, Switzerland, that brings its composite component development and production under one roof. The Swiss manufacturer of civil and military turboprops and jets has used composites for more than 40 years, mostly in non-load-bearing secondary structures, but its PC-24 incorporates them in primary structural components. Building on that experience with load-bearing control surfaces, Pilatus plans to expand its use of composites. The building handles every step from raw-material delivery and storage to component production, subassembly, and surface treatment.

HANEDA PLANS THREE-STRIKES RULE FOR PILOTS

Business aircraft captains with three counted deviations from air traffic control instructions at Tokyo International Airport (RJTT, also known as Haneda Airport) will lose pilot-in-command privileges there under an enforcement program the Japan Civil Aviation Bureau is preparing for international business and general aviation traffic. Reported by Universal Weather and Aviation, the restriction attaches to the individual pilot rather than the aircraft or the operator. A pilot who reaches that threshold becomes what the agency terms a "restricted captain" and loses the ability to serve as PIC on flights into or out of Haneda. A captain's count drops by one after a full year without another deviation.

TEXTRON AVIATION DELIVERS 500TH CITATION CJ4

Textron Aviation has delivered its 500th Cessna Citation CJ4 series twinjet—a CJ4 Gen2—to a customer in the Philippines. The milestone 500th CJ4 rolled out of Textron Aviation's Wichita facility in June. The light jet series has been in production since 2010. Meanwhile, the CJ4 Gen3 continues its march toward FAA certification, which the company expects before year-end.

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Longtime AIN editor-in-chief Matt Thurber retires in October

BY CHARLES ALCOCK

Matt Thurber, editor-in-chief of AIN Media Group for the past nine years, is retiring at the end of October. His career as a widely respected aviation journalist spans four decades, including three spells with the AIN team. Previously, Thurber served as editor of Aviation Maintenance magazine and as an associate editor at Flying magazine.

At AIN, Thurber has been an exceptionally prolific journalist, contributing widely to all AIN Media Group publications. In addition to the day-to-day business aviation news beat, his work includes in-depth coverage of avionics, maintenance, training, safety, operations, rotorcraft, and myriad other topics.

Thurber is also an experienced pilot, holding an ATP pilot certificate as well as airplane and helicopter commercial pilot certificates. He is an instrument flight instructor and holds type ratings in the Gulfstream G550 and Cessna Citation 500 series. Additionally, Thurber holds an A&P mechanic certificate.

These qualifications have opened doors for Thurber to file expert pilot reports on multiple aircraft types. He has also been a frequent contributor to AIN Media Group's Business Jet Traveler publication for private aviation consumers. Thurber has been honored with the NBAA Gold Wing Award for Journalism Excellence and multiple Aerospace Media Awards.

Thurber's aviation pedigree dates to 1975, when he first started flying. He subsequently trained and worked as an A&P

mechanic, as well as acting as an instructor at a flight school in Plymouth, Massachusetts, in the early 1980s. He later earned a bachelor's degree in professional aeronautics from Embry-Riddle Aeronautical University.

"Matt is a true legend of aviation journalism, and his contributions as AIN's editor-in-chief have been foundational to its ongoing reputation for high-quality, independent coverage of the industry," said AIN Media Group chairman emeritus Wilson Leach. "He has

always preserved the editorial principles established by our founding editor Jim Holahan—prioritizing insight, discernment, and background knowledge to serve our readers with objective news coverage clearly presented. We will most miss his insightful advice and commentary, camaraderie, and wry sense of humor."

In retirement, Thurber intends to spend more time with his wife, Esther, and their two children, as well as working on three aircraft projects near his home in Vancouver, Washington. He also plans to keep flying whatever aircraft he can get his hands on.

"Covering the aviation industry, and especially the vibrant business aviation community, has been the highlight of my career," Thurber commented. "I so appreciate the many kindnesses that everyone has shown me over the years, helping me learn and understand more than I ever thought possible about safety, flying various types of aircraft, and maintaining the highest levels of quality, both in writing and aviating." ■



MATT THURBER
EDITOR-IN-CHIEF, AIN

PHOTO: DAVID MCINTOSH

News Briefs

GAO SEES GAPS IN FBO FEE TRANSPARENCY

While business and general aviation operators generally can find accurate fuel prices online, FBO fees are less reliable, according to a U.S. Government Accountability Office (GAO) report. Investigators called 45 FBOs at 40 airports, then compared what they were told with information online. Fuel prices matched across four websites for 14 FBOs and some sources for another 20. Prices differed at 11 FBOs. Of the 16 FBOs that said they charge mandatory fees, none had them "listed accurately on all the online sources." Missing charges included ramp and facility fees ranging from \$11 to \$45 and \$10 to \$88, respectively.

LOCAL GROUPS JOIN TO SUPPORT CLEVELAND AIRPORT

A coalition of more than 50 Cleveland-area business, education, and civic leaders is urging the Cleveland City Council to keep Burke Lakefront Airport (KBKL) open. Cleveland Mayor Justin Bibb has proposed closing the airport and redeveloping the area as parkland and for commercial use. "KBKL is not 'underutilized land'—it is a high-functioning transportation hub and an economic engine," the coalition said. "Closing this airport would not only disrupt regional commerce but would create a permanent void in Cleveland's infrastructure."

BAHAMAS FEE HIKES HIT OPERATORS RETROACTIVELY

The Bahamas Air Navigation Services Authority (BANSAs) has begun retroactively invoicing operators for flights to, from, within, or over the Bahamas dating back to May 1, 2021. BANSAs's April 2024 Notice of Intent and current fee schedule detail the per-flight and distance-based overflight rates by aircraft weight category but do not mention retroactive application. The fees apply to piston twins, turboprops, and jets on private and commercial flights.

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*Listed performance is based on projections only and is subject to change. Actual performance will be affected by operating conditions and other factors. Images are renderings. Experience a full-scale mockup of the SJ36 at NBAA-BACE in October 2026.

Durability and Efficiency: Open Fan Engine Architecture Could Improve Both

CFM International's RISE program pushes Open Fan design toward 20% better fuel efficiency while engineering for hot, harsh operating environments.



A model of the RISE program's Open Fan demonstration engine, which is aiming for 20% better fuel efficiency and improved durability.

The Open Fan engine, a distinctive architecture that could power the next generation of single-aisle aircraft, targets a major step change in efficiency for the aerospace industry. By shedding the ducts that traditionally enclose an engine, designers can build a much larger fan with a greater bypass ratio and less drag, yielding improved propulsive output. The projected result: 20% better fuel efficiency than traditional turbofan engines.

Efficiency isn't the only advantage. The architecture is part of the RISE technology demonstration program of CFM International, a 50-50 joint company between GE Aerospace and Safran Aircraft Engines. Open Fan is also being designed for enhanced durability,

with a unique fan blade system, aerodynamic design, and adaptive cycle engine capability that could significantly reduce dust ingestion — a major benefit for operators in hot and harsh environments.

Engineers are now pushing the technology further, having completed more than 500 test campaigns and 3,000 endurance cycles of core components. This includes the earliest-ever dust ingestion testing for any CFM program, following a “test early, test often” philosophy. Alongside this testing regime, teams are applying program updates that bolster the durability of the next-generation architecture — improvements aimed at boosting reliability and time on wing.

Durability Built In

The Open Fan's aerodynamic design benefits propulsive efficiency, thermal performance, and durability alike. Its large fan blades harness more air than blades on next-generation ducted engines and let more of that air bypass the engine's core, where combustion and high-pressure processing occur. The goal is less drag, a cooler core, and reduced dust ingestion.

"CFM's objective is to actually get hot and harsh operators to experience the same durability levels that today's operators in more neutral environments enjoy," said Arjan Hegeman, vice president of future of flight engineering at GE Aerospace, in a recent webinar on the RISE program.

The architecture's adaptive cycle capability, also known as variable bypass architecture, optimizes performance at every flight stage — more thrust during takeoff or climb, more bypass air during cruise. These cycles create additional airstreams for dust to exit the engine, reducing part erosion and buildup in the combustor and high-pressure turbine. Working with the U.S. Air Force through the Adaptive Engine Transition Program, GE Aerospace has already completed testing on the XA100, the world's first flight-weight, three-stream adaptive cycle engine.

"The value proposition of the RISE program's Open Fan is that you get double-digit fuel efficiency coming out of the propulsive system," Hegeman said, "which means you don't need to stress and tax the hot part of the engine as much to get to that 20% number."

Pierre Cottenceau, vice president of engineering, research and technology at Safran Aircraft Engines, concurs. "Materials play a key role in keeping the engine light and making it durable despite the harsh conditions that it has to operate in. There has been a lot of work on the CFM side, [and with] both partners, to develop new materials and apply them to this engine architecture."

Airframers see the potential too. "Evaluating a radical architecture like the Open Fan requires a completely integrated approach between airframer and engine designers," said Frank Haselbach, senior vice president of propulsion engineering at Airbus, in the same webinar. "The technological potential of the Open Fan is huge, and this demonstrator allows us to jointly mature the architecture and see how it behaves in flight."

Test, Rinse, Repeat

Relentless testing underpins the durability push. The RISE program centers safety and reliability in every innovation cycle, testing everything from materials selection to cycle design while drawing on decades of engine-development experience. "We probably have 30 to 50 tests running continuously," Hegeman said, describing a progression from component tests to module and system-level testing, including durability testing, eventually maturing to full engine ground and flight testing.

Dust ingestion testing required particular precision. "We spent a lot of time getting the right dust, the right operating conditions, the right simulation in a test environment that we can exactly replicate," Hegeman said, noting the process draws on lessons from today's flying fleet to inform future products.

Durability, Always Front of Mind

CFM continues advancing RISE technology, collaborating with Airbus on an Open Fan flight demonstration planned this decade, and working closely on engine-to-aircraft integration. Flight tests remain essential for understanding performance, safety, noise, and aerodynamics before any engine product launch. Cottenceau noted more than 400 hours of Open Fan blade testing in a wind tunnel at ONERA, the French National Aerospace Research Center, giving strong evidence toward future noise-emission targets.



One of many dust ingestion tests for the RISE program, which are critical for understanding how this new engine architecture will function in harsher environments.

Haselbach remains optimistic about Open Fan's future, noting the industry will need roughly 40,000 new commercial aircraft over the next 20 years, with single-aisle jets — "the backbone of the industry" — making up about 75% of that demand. He praised CFM's scale of commitment: thousands of engineers working on RISE, investing in tools to accelerate the program. "We know how important it is to deliver on safety, fuel efficiency, and durability," he said.

RISE (Revolutionary Innovation for Sustainable Engines) is a technology demonstration program of CFM International, a 50-50 joint company between GE Aerospace and Safran Aircraft Engines. It is not a product offered for commercial sale.

AIN 2026 Product Support Survey: Engines

AIN readers rate business aviation engine OEMs' aftermarket support

BY CURT EPSTEIN



The BR700 series led the turbofan model-specific ratings, shining in multiple areas of support.

Engines are without doubt the most critical component on an aircraft. They unlock the aircraft's potential as a means of fast, efficient transportation, and without them, a business airplane is just a static, expensive piece of aeronautical artwork.

Part 3 of AIN's annual Product Support Survey asked our readers to rate their engine reliability and the support they receive from the manufacturers.

In this year's results, Rolls-Royce rose to the top of the turbofan manufacturers with a score of 8.54, while GE Aerospace, which had held that spot for the past few years, moved to third place (8.39). Splitting that

narrow gap was Williams International, which drew a rating of 8.41, while Pratt & Whitney (7.91) and Honeywell Aerospace (7.90) filled out the remainder of the roster—not too far off the top scores.

Among those that garnered enough ratings to meet the reportable threshold, the top three ranked jet engines in this year's survey were Rolls-Royce's BR700 series (8.61), followed by GE's Passport (8.54) and CF34 (8.40). They were rated across 10 categories.

In the turboprop segment, Honeywell's TPE331 earned the overall highest score (8.71) among all engine models in this year's survey, leapfrogging

Pratt & Whitney's PT6A (8.23).

"Service remains a major driver of platform lifecycle success," said Malcolm Fleming, Honeywell Aerospace's v-p of global technical operations. "Operators strongly consider high-quality OEM support when evaluating engine performance and long-term ownership cost."

One of the perpetual gripes among AIN's annual survey respondents is the cost of parts, and that held true this year, with the category once again seeing the lowest high score among all 10 of the survey categories. "We have also observed rising costs, driven primarily by suppliers increasing prices in

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response to broader global economic pressures,” said Lindsey Gillen, v-p of sales and marketing for business aviation services at Rolls-Royce. “Additionally, there is a notable shift from fully global supply chains towards more local or regional sourcing, particularly within the Western hemisphere.”

Yet manufacturers face several hurdles when it comes to optimizing their performance. “The industry continues to operate in an environment of strong demand while navigating supply-chain constraints, workforce availability, and the need to expand maintenance capacity,” said Anthony Rossi, Pratt & Whitney Canada’s v-p of customer service. “Although conditions have improved, operators continue to expect faster turnaround times, greater flexibility, and higher levels of support.”

“One of the key issues facing our industry is the shortage of skilled labor needed to produce castings, forgings, and machined components, which, coupled with high demand, puts significant pressure on the supply base and overall throughput,” explained Honeywell’s Fleming, adding this constraint is driving extended lead times and continued supply-chain volatility. “To mitigate this, we are forecasting requirements further beyond standard lead times, expanding repair development to reduce reliance on new-build material, and increasing supplier-development efforts to stabilize flow and improve capacity.”

Justin Kral, head of GE Aerospace’s business aviation customer support and services, noted the labor shortage is not just on the production side. “The shortage of

A&P technicians and retiring expertise gap [less than 15 years’ experience and greater than 25 years’ experience] continues to be a key challenge,” he said, adding a major driver is a lack of awareness of job needs and opportunities in business aviation. “Organizations like NBAA/EBAA/NATA are critical to spreading awareness.”

This has led to OEMs assessing the means by which they recruit and retain talent. “We invest heavily in technical training, professional development, and ongoing career opportunities, which has built a highly skilled, long-tenured workforce, a key part of the value we deliver to operators,” said Williams International v-p of customer experience Steve Shettler. “Exceptional service is absolutely central to long-term customer confidence, and it directly influences future sales.”

Category & Overall Average Ratings for Aircraft Engines	Overall Average 2026	Factory Owned Service Centers	Authorized Service Centers	Cost per Hour Programs	Parts Availability	Cost of Parts	AOG Response	Warranty Fulfillment	Technical Manuals	Technical Reps	Overall Engine Reliability
Turbofan Engines											
Rolls-Royce	8.54	8.83	8.58	7.77	8.70	7.41	8.63	8.93	8.16	8.84	9.32
Williams International	8.41	8.95	9.40	7.33	8.52	7.37	8.31	8.55	8.28	8.12	9.27
GE Aerospace	8.39	8.70	8.06	7.51	8.25	7.00	8.43	8.62	8.72	8.80	9.36
Pratt & Whitney	7.91	7.95	9.08	7.42	7.27	6.34	7.71	8.13	8.63	8.40	8.43
Honeywell Aerospace	7.90	8.18	8.50	7.39	7.26	6.75	7.83	8.11	7.88	7.77	8.95
Turboprop Engines											
Pratt & Whitney	8.23	8.58	8.66	7.58	7.95	6.35	7.68	8.78	8.33	8.85	9.48
Turboprop Engines (for out-of-production turboprop aircraft)											
Honeywell Aerospace	8.71	9.27	9.05	8.78	8.80	6.29	9.20	7.78	9.00	9.12	9.56
Turboshaft Engines											
Pratt & Whitney	8.31	8.80	7.50	7.64	8.12	6.84	7.77	8.52	8.78	8.81	9.42

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SURVEY RULES AND METHODOLOGY

AIN's annual Product Support Survey aims to quantify and rate through statistical analysis the product support functions of aircraft manufacturers over the past year. The survey, whose respondents include operators of business jets, pressurized turboprops, and turbine-powered helicopters, endeavors to encourage continuous improvement in aircraft product support throughout the industry.

SURVEY TOOL

For the fourth year, AIN conducted the survey via a questionnaire developed in partnership with Rolland Vincent Associates, a Texas-based consultancy focused on aviation market research, strategy, and forecasting. Designed

to provide improved ease of use and to encourage more participants to complete the entire questionnaire, the English-language survey tool includes clear language and imagery around the categories and evaluation scale. The survey asks respondents to evaluate one full aircraft at a time, including airframe, engines, avionics, and cabin management systems/in-flight entertainment systems, as well as airborne connectivity systems.

METHODOLOGY

AIN emailed qualified readers from its list of subscribers a link to a password-protected survey website active from late February to May 31, 2026. It asked respondents to rate individual aircraft and provide the tail number, aircraft age, primary region of service, and whether they

used factory-owned or authorized service centers, or both. The survey's engines section also asked respondents to rate, on a scale from 1 to 10, the quality of service they received during the previous 12 months in the following categories: Factory Owned Service Centers; Authorized Service Centers; Cost Per Hour Program; Parts Availability; Cost of Parts; AOG Response; Warranty Fulfillment; Technical Manuals; Technical Reps; and Overall Engine Reliability.

THE RESULTS

In total, 710 unique respondents representing 1,152 aircraft from 62 countries completed the survey. We only included results of engine manufacturers/models that met the minimum threshold of ratings. Rolland Vincent Associates reviewed the Product Support Survey data to ensure accuracy.

ROLLS-ROYCE

Taking the top position this year in the AIN Product Support Survey: Engines was Rolls-Royce. With a rise of more than a tenth of a point from last year's results, the manufacturer climbed from third place to lead the turbofan engine manufacturers with an overall score of 8.54. It led in more than half of the individual survey categories as well, with a top score coming in the warranty fulfillment category (8.93).

Helping propel these scores was its BR700 series powering Gulfstream and Bombardier long-range models with an 8.61 rating and top scores in a handful of the categories.

"Right now, we have more than 8,100 engines in service, covering six different engine types, some of which have been flying for up to 40 years," explained Rolls-Royce's Gillen. "That level of diversity from the Tay to the Pearl 700 really requires us to offer a broad range of support options."

In the cost per hour category, Rolls-Royce led the pack with its CorporateCare Enhanced program earning a score of 7.77. "We have made strong commitments to



Rolls-Royce climbed to the top of this year's product support chart with an 8.54 overall average.

our CorporateCare customers, who count on us for unmatched aircraft availability, quick service, and world-class support,"

Gillen told AIN, adding that with more than 250 lease engines and nacelle components available to support them, resilience

FIGHT FATIGUE RISKS ON ALL FRONTS

Managing pilot fatigue extends well beyond inflight hours. It begins long before stepping into the cockpit and continues after the aircraft is parked. What happens off duty affects what happens on duty. Fatigue is cumulative and influenced by work and personal life, meaning roles exist in both domains. Individuals must responsibly manage personal activities so they can report rested and alert for flights. Key organizational touchstones include promoting basic fatigue science, applying it in scheduling, and embracing no-fault reporting and adaptation when individuals experience excessive fatigue.

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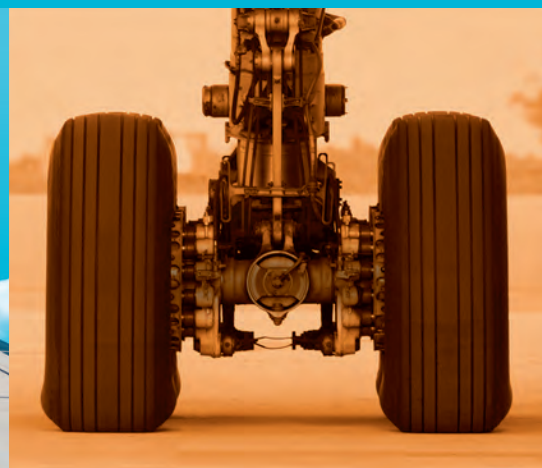
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Thank you and safe flying!

A handwritten signature in blue ink that reads "John Brogan".

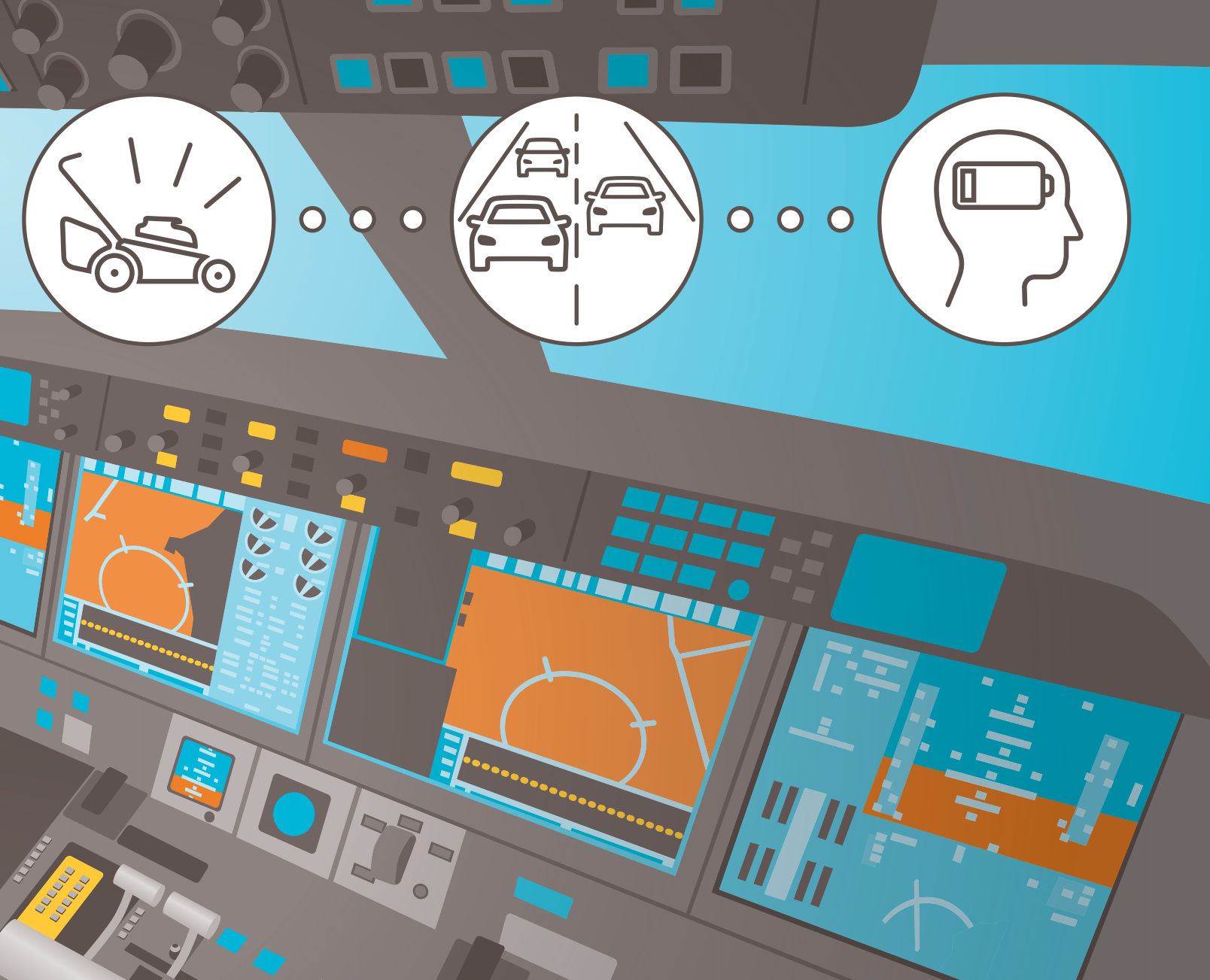
John Brogan
President and CEO, USAIG





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MANAGING FATIGUE RISK
IS EVERYONE'S JOB



Fatigue won't step aside just because you're in a cockpit. It follows you in. It builds through interrupted or shifted sleep intervals, travel, stress, long days, and the demands of life. First, make an honest effort to report for every flight with a reserve of alertness. As a vital second layer, foster and operate in a flying culture that actively monitors fatigue, encourages speaking up about it, and prioritizes safety by adapting plans to support rest and recovery when needed.

- ▶ Manage your reserve of alertness, it's your first preflight preparation.
- ▶ Reporting fatigue is a mature safety decision, not a weakness. Prioritize safe operational solutions.
- ▶ Don't ignore sleep debt. Extra recovery time is necessary after disrupted schedules.
- ▶ Deploy basic fatigue science in your organization. Common knowledge and terms build safe cultures.

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is the company's major focus this year. "We are taking a close look at every aspect of our services for each product to make sure we always have the capacity and expertise to deliver the best possible support—no matter which engine, and no matter when."

That commitment led to the OEM claiming the top slot in the AOG response category as well (8.63). Rolls-Royce operates a dedicated, 24/7 business aviation aircraft availability center that delivers an average of less than 24-hour AOG return to service time and an averted missed trip rate of over 99% worldwide.

It has 10 strategically located part depots around the world, the latest being a 10,000-sq-ft AOG support location in New York to support the company's U.S. East Coast clients.

That resonated among AIN's survey respondents, who gave the engine maker top marks in parts availability (8.70). "We are facing some challenges, particularly regarding some older parts where demand is lower and several suppliers have exited

the market," admitted Gillen, who added the company has invested more than a billion dollars in its global services network to ensure parts availability and rapid response.

While the cost of parts category is never one to spur enthusiasm among AIN's respondents, Rolls landed on the top of the heap in this year's survey with a score of 7.41. "We have observed rising costs, driven primarily by suppliers increasing prices in response to broader global economic pressures," said Gillen.

With 25 dedicated customer managers located around the world, Rolls-Royce also earned the top score (8.84) among turbofan manufacturers for its technical representatives. "We sell aircraft availability," Gillen told AIN. "Service is absolutely mission critical; being available, equipped, and prepared whenever or wherever a customer needs support."

Among its latest innovations is the integration of the Engine Health and Vibration Monitoring Unit into its Pearl family of powerplants.

"While the name might be clunky, this piece of technology is capable of delivering predictive analytics on the engine and even on line replaceable units," explained Gillen. "It allows us to monitor thousands of different parameters in real time, like heat, vibration, and even the cycle times and current draws of various components." That, she said, gives it the ability to keep an eye not only on engine health, but also to predict issues before they happen, both at the engine and component level.

In the factory owned service center category, the company tallied a strong 8.83 score this year. "Our Rolls-Royce MRO facilities handle about 300 engine repairs each year, which represents about 90% of all shop visits," said Gillen. "The remaining 10% is managed by our network of trusted partners—authorized and independent service centers that we have carefully selected for their quality standards and capabilities." Those outside shops received a score of 8.58.

WILLIAMS INTERNATIONAL

Having earned a second-place finish in last year's Product Support Survey, Pontiac, Michigan-based Williams International maintained that position this year, despite its overall score dropping from 8.78 in the 2025 edition to 8.41 in the latest edition.

"Williams International currently supports a fleet that will exceed 8,500 engines this year, with more than 23 million total flight hours," noted Williams' Shettler, describing that as a testament to the scale of its global customer base as well as its product reliability. "As our fleet continues to expand, we remain committed to delivering industry-leading value, affordability, and performance for operators worldwide."

As its FJ44 engine fleet has grown, so too has Williams' engine service business,



Williams International's second-place rating reflects investments in personnel and parts.

which has more than doubled in the last decade. That is a trend the company expects to continue.

“Over the past year, we have made significant investments to further strengthen customer support in ways that enhance accessibility, responsiveness, and cost predictability,” Shettler told **AIN**. “We expanded our customer service team to provide owners and operators with more direct access to highly trained representatives, ensuring faster, more personalized assistance. We also improved our spare parts logistics operations through enhanced inventory tracking and faster shipping options, reducing turnaround times and helping ensure aircraft remain mission ready.”

Indeed, **AIN**’s survey respondents appreciated that effort, giving the company an 8.52 score for the parts availability category, the second-highest total among the jet engine manufacturers.

Response on the authorized service center category indicated a strong degree of satisfaction among **AIN**’s readers.

“For everyday line level maintenance, we rely on our authorized service centers—all of which receive comprehensive training from us,” said Shettler. “When maintenance goes beyond line level, our repair station takes the lead and often works hand in hand with those centers to complete more complex jobs right at the aircraft’s location.”

That facility earned the highest score among turbofan makers in the factory

owned service centers category (8.95) in this year’s survey.

Last year the company began construction on what will be a more than \$1 billion aviation engine manufacturing plant at the Shoal River Industrial Park in Crestview, Florida. The first 250,000 sq ft of what will eventually be a 600,000-sq-ft facility is slated to open by the end of this year.

At the groundbreaking last November, Williams said the facility would enable “the future growth of new product lines.”

This is on top of a recent addition at the company’s Ogden, Utah, location, and a planned \$200 million expansion of the development and testing center at its Pontiac headquarters.

GE AEROSPACE

After placing at the top of the list of business jet engine manufacturers last year with an overall average score of 8.81, GE

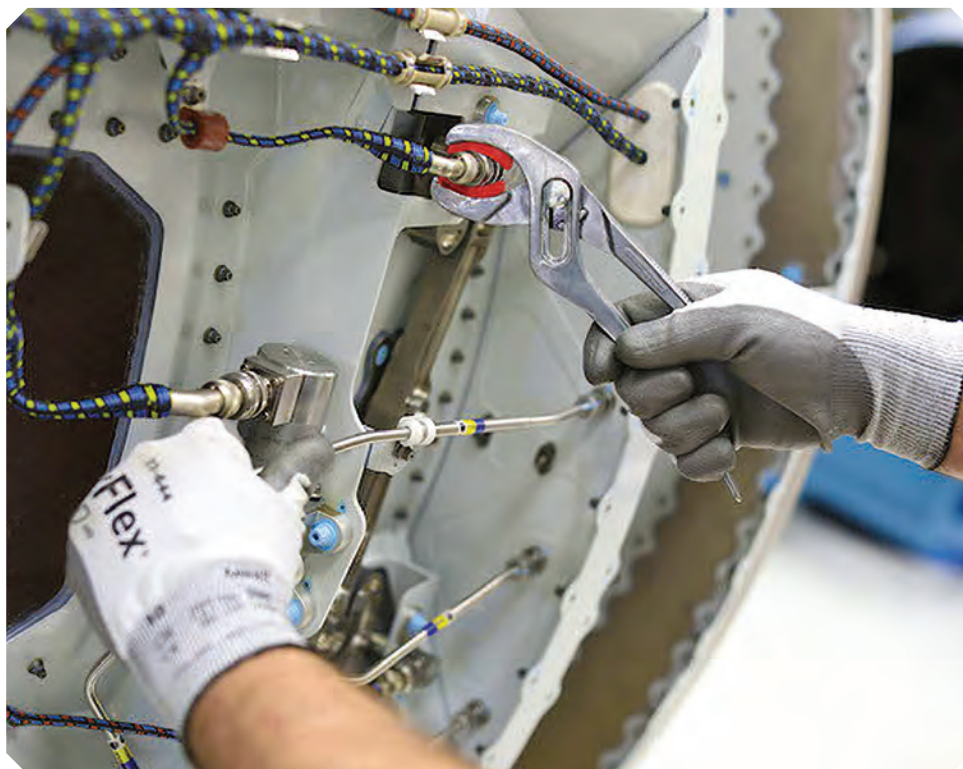
Aerospace saw some erosion, placing third this year, with its score down more than four-tenths of a point (8.39). It did,

however, receive the highest score (9.36) among turbofan OEMs in the overall engine reliability category.

Broken down by engine type, **AIN**’s survey respondents ranked the Ohio-based manufacturer’s Passport (as used on the Bombardier Global 7500 and 8000) and CF34 engines (which power Bombardier’s Challenger 600 series) in the turbofan category. The latter earned the highest rating on overall engine reliability this year among the turbofan engines, tallying a score of 9.39, and narrowly edging out its Passport sibling (9.22) and the Rolls-Royce BR700 series among the reported engines, while also nabbing the top score for technical manuals (8.69).

“[We] continue to build and refine proactive analytics that use thousands of engine parameters to predict hardware failures before they occur,” explained GE Aerospace’s Kral. “This turns diagnostics from reactive to prognostic and proactive.”

While the company scored the lowest (8.06) among jet engine manufacturers in the authorized service center category,



GE Aerospace has added more traveling technicians to strengthen mobile repair support.

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it is working with its network to increase its “in-house” engine maintenance capacity and minimize aircraft downtime spent waiting for GE technicians to travel to the location. To that end, it is also expanding the availability of its mobile repair teams for complicated tasks involving OEM expertise, with a 20% increase in traveling engine technicians over the past 18 months.

The Passport engine earned the highest score (8.74) in AOG response, as well as technical representatives (9.05) for the turbofan segment. “GE Aerospace constantly assesses proximity of product and

customer support to high-traffic locations where our business aviation customers fly the most,” said Kral.

To meet that demand, the company recently added new field support personnel in the well-connected hub of Singapore to improve its access to the Asia-Pacific region as well as place them near several critical service centers including Bombardier’s repair facility at Seletar Aerospace Park. As well, it boosted its regional leadership in the Eastern coast of the U.S. to bolster support for growing demand in northern and southeastern business aviation hubs.

AIN’s readers gave the manufacturer’s OnPoint maintenance program a score of 7.51, good for second place in the cost per hour programs category. “The combination of world-class product performance, best-in-class OEM support, and the security of our comprehensive OnPoint engine maintenance program has created an order backlog with our trusted airframe partners with the fleet projected to triple in size over the next 10 years,” Kral told AIN.

In 2024, the engine maker became a standalone company when General Electric divided itself into three separate businesses.

PRATT & WHITNEY

Pratt & Whitney produces engines for the private jet and turboprop segments through its subsidiary Pratt & Whitney Canada. For the former engine segment, it earned an overall average score of 7.91 from AIN’s readers, while its turboprop

engines—led by the ubiquitous PT6 family—fared better at 8.23 and turboshafts at 8.31.

“The number of P&WC engines in service increased from 62,870 at the end of 2015 to 70,900 at the end of 2025,” said Pratt &

Whitney’s Rossi, adding that over the past two years the OEM has made significant investments in its global MRO network to expand capacity, reduce turnaround times and better support its growing fleet.

The company recently announced a C\$275 million investment to modernize its largest manufacturing plant in Longueuil, Quebec. Improvements will include the addition of automated production lines, modernized machinery, and cutting-edge digital processes. These enhancements will drive greater efficiency, precision, and industrial capacity.

In rating the company’s service facilities, AIN’s survey respondents gave P&WC’s authorized service centers a score of 9.08, the second highest in the segment. “Our global customer service network is a key competitive advantage,” said Rossi. “Beyond the engine itself, customers benefit from a worldwide support organization that helps maximize aircraft availability, reduce downtime, and deliver consistent service wherever they operate.”

On the other side of the coin, however, its factory owned service centers earned a 7.95, the lowest among the turbojet makers this year, although its turboprop rating was much higher at 8.58. “Most recently,



Pratt & Whitney is assigning high priority to improving parts availability.



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we expanded our Singapore facility to introduce PT6C-67C heavy MRO services, supported by a new modular test cell, and added full overhaul capability for the PW127XT,” Rossi explained. “By combining digital solutions, specialized tooling and expanded regional capabilities, we are bringing more comprehensive support closer to customers and helping improve turnaround times.”

For the parts availability category, the OEM landed near the bottom of the ratings with a 7.27 score. “At Pratt & Whitney Canada, improving parts availability remains one of our highest priorities,” Rossi told AIN. “We’ve strengthened our distribution

network and inventory strategy, increased available inventory across our global network, and continue working closely with suppliers to enhance responsiveness and delivery performance.”

Broken down by segment, on the turbofan side, AIN’s survey respondents were not impressed with the cost of the manufacturer’s parts, handing it a 6.34, the lowest satisfaction score in the segment. The company is working to give its customers other options. “We’ve expanded our repair development activities and the capabilities of our component repair and overhaul business group to improve the availability and accessibility of repaired parts,”

Rossi noted. “This approach reduces the demand for new parts by providing operators with the option to exchange and use repaired components, which can also decrease costs for our customers.”

In the engine-specific segment, P&WC’s PT6 turboprop family earned a score of 9.40 for its overall engine reliability in this year’s survey, second among all individual engines reported.

Warranty fulfillment for the PT6 also was near the top of those engine models reported at 8.79. However, the respondents also expressed concern with the cost of parts, giving it nearly the same score in the category (6.36) as its turbofan siblings.

Category & Overall Average Ratings for Aircraft Engines	Engine Model	Overall Average 2026	Factory Owned Service Centers	Authorized Service Centers	Cost per Hour Programs	Parts Availability	Cost of Parts	AOG Response	Warranty Fulfillment	Technical Manuals	Technical Reps	Overall Engine Reliability
Turbofan Engines												
Rolls-Royce	BR700 series	8.61	8.76	8.80	7.95	8.79	7.54	8.73	8.95	8.16	8.91	9.36
GE Aerospace	Passport	8.54	8.59	7.69	7.60	8.49	7.41	8.74	8.85	8.64	9.05	9.22
GE Aerospace	CF34	8.40	8.65	8.02	7.59	8.17	7.23	8.37	8.69	8.69	8.81	9.39
Honeywell Aerospace	TFE731	8.01	8.03	8.55	7.22	7.26	7.27	8.17	8.45	8.16	8.07	9.10
Honeywell Aerospace	HTF7000	7.85	8.31	8.33	7.37	7.32	6.86	7.51	8.01	7.75	7.74	8.96
Pratt & Whitney	PW300 series	7.64	7.50	9.05	7.36	6.78	6.39	7.37	7.89	8.48	7.84	8.17
Williams International	FJ44	8.38	8.89	9.50	7.60	8.39	7.56	8.18	8.46	8.27	8.11	9.03
Turboprop/Turboshaft Engines												
Honeywell	TPE331	8.71	9.27	9.05	8.78	8.80	6.29	9.20	7.78	9.00	9.12	9.56
Pratt & Whitney	PT6A (turboprop)	8.23	8.59	8.68	7.60	7.95	6.36	7.71	8.79	8.32	8.86	9.40



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HONEYWELL AEROSPACE

On June 29, Honeywell Aerospace was spun off from its parent organization to become a standalone company with exposure in the engine manufacturing, airborne connectivity, components, and avionics arenas. “Over the past decade, the overall Honeywell Aerospace business has nearly doubled in size, representing the trust our customers have in us,” said Malcolm Fleming, the company’s v-p of global technical operations. “This growth is particularly noteworthy for our engines business because it was achieved while focusing on improvements that increase operator time on wing, including initiatives that can extend scheduled maintenance intervals for both the TFE and HTF models of engines by years, in some cases.”

In the third part of this year’s *AIN* Product Support Survey covering support for aircraft powerplants, the engine maker saw the largest year-over-year overall score increase among the manufacturers, with its score of 7.90 landing just a shade behind Pratt & Whitney in the turbofan segment. Its HTF engines—which power the Bombardier Challenger 300 family including the Challenger 3500, and the TFE, as equipped on legacy Dassault Falcons, Learjets, some Cessna Citations, and Hawkers—collectively received their highest rating (8.95) in overall engine reliability.

The manufacturer’s newest investment is Ensemble, a digital engine-monitoring intelligence suite that is available exclusively to subscribers of its cost-per-hour maintenance service plan.

“The platform delivers data downloads through Wi-Fi, analyzed by machine learning to help flag engine trends that require attention before they may cause unscheduled maintenance events,” Fleming said, adding the goal is to extend dispatch reliability for HTF and TFE engines. “As the machine learning and large language models evolve, we are actively releasing new



Machine learning is helping Honeywell Aerospace find and fix problems proactively.

capability several times a year aimed at improving mission readiness and mission assurance. Our pursuit is to continue building a transformative technology platform that enables a near real-time engine health monitoring and maintenance ecosystem.”

For its support of the TPE331 turboprop engine—as equipped on out-of-production aircraft such as the Mitsubishi MU-2 and Beechcraft King Air 100—Honeywell received an overall average score of 8.71 in this year’s survey, up more than a third of a point from last year’s results.

The family earned its highest score (9.56) in the overall engine reliability category. That is the highest score awarded by *AIN*’s readership in this year’s survey (among reported engines), and one of six categories (out of 10) in which it received a score of 9.0 or higher.

While the Phoenix-based company tallied a strong 8.80 score in the parts availability category for the line, the cost of those parts earned it the lowest score (6.29) among the reported engines in this year’s survey. ■



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Manufacturers move into a renewed material world

BY JULIE BOATMAN



Pilatus Aircraft is evaluating the benefits of returning more manufacturing waste into the aircraft construction process.

While clean-sheet aircraft designs occasionally make headlines, much of the improvement in aerospace engineering is applied incrementally to new models. Though not as flashy as a futuristic rendering, these progressions often incorporate advanced materials elegantly woven into an existing type-certificated design.

Alongside these new materials, the industry has adopted new ways of manufacturing in pursuit of lowering costs, building efficiency, and reducing waste. Solutions go beyond those now-common ones involving 3D printing and its corollary, additive manufacturing, where a component is built by layering material into a given shape rather than carving it out of a block—which, if done correctly, produces

much less discarded material. Indeed, many OEMs have entered a world where the life cycle of the material itself takes center stage. And, the improvements are not just in the material itself, but in how it is reused to reduce cost and impact on the planet.

DAHER LEVERAGES TECH

French company Daher, through its aircraft business, manufactures the TBM 900 series and Kodiak 100 and 900, all single-engine turboprops built primarily from aluminum and steel, with composite components typically in non-load-bearing structures. As an industrial conglomerate, however, it has made significant investment into developing ways

to use carbon fiber and thermoplastic parts in an ever-widening range of aerospace applications.

Among these advancements, Daher has developed a patented induction thermoplastic welding technology. This fastener-free assembly “represents a major technological breakthrough, allowing for a reduction in the weight of aerostructures by up to 15%—a gain impossible with traditional methods,” according to the company. In late 2024, this innovation was validated at its Shap’in Tech Center in Nantes, France, with a fixed horizontal tailplane demonstrator for aircraft, “confirming its industrial feasibility.”

The second pillar of this strategy focuses on upcycling scrap that is generated during

the production of thermoplastic composite parts. Daher has implemented a process by which production scrap is collected on site, ground up, and then transformed into a semi-finished product. As a result, 100% of the pure carbon polyphenylene sulfide (PPS) scrap is upcycled through this process, according to Daher.

“The resulting semi-finished product is a pellet containing 56% carbon fiber. Derived from fibers that originally were continuous and reprocessed into short fibers, it offers high mechanical performance, including excellent temperature resistance and strong resistance to moisture and chemical exposure,” even if it can’t be used in structural, load-bearing applications.

Daher now estimates a production capacity of four to seven tons per year of carbon PPS pellets. Recently, using the same scrap material, the Daher Group developed a filament for additive manufacturing, opening new opportunities for 3D printing of technical parts. Dominique Bailly, Daher’s R&D director, explained the process, the details, the implementation, and the future.

Daher began targeting its first part for the use of the recycled pellets in the rudder pedals used in the flight deck of the TBM 960 and now, TBM 980. The application was chosen for several reasons, one of which was its utility function as well as its placement out of sight in the airplane. “A few years ago we were looking for an application on our aircraft that could be successful, switching from machined

aluminum to injected carbon PPS parts,” Bailly told **AIN**. “We selected the TBM rudder pedal. We made the demonstration, we made some prototypes, and we did some tests. Finally, we were successful in the certification demonstration with EASA.”

Discussing the process, he added, “We grind the waste coming from the plant, so at the end the carbon fiber is only 0.6 millimeters long, so you cannot have very high loads [translating] through the parts that are redesigned, but for simple loads it works very well; it has very nearly aluminum mechanical characteristics.”

The next part in development makes sense: the rudder pedals on Daher’s Kodiak 100 and 900 utility turboprops. First, the internal team must determine the interest in making the change and understand if it will have the same cost- and materials-saving advantages as the TBM rudder pedal replacement. Weight savings were not a goal for the TBM pedals, said Bailly, as it would have only been a few grams.

Also in development is the door handle on the TBM, and it presents similar advantages (saving cost through the reduced need to purchase new materials) but different challenges, since it is highly visible—and its aluminum predecessor came polished to a considerable shine. That can’t be done with carbon fiber, and Bailly is concerned about adding a layer of metal deposition.

Some future applications will involve the use of the PPS sandwiched between

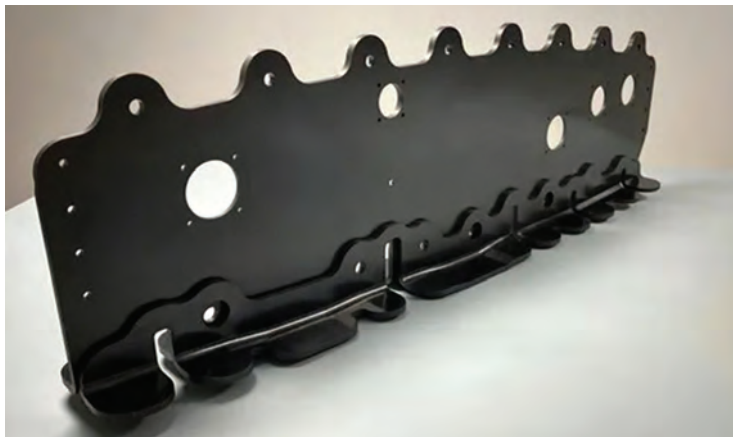
two fiberglass layers, with the aim of isolating the PPS from metal components and the resulting risk of corrosion. “We are working to demonstrate that we can mix pure C/PPS with C/PPS+ glass without any impact on mechanical characteristics, in order to double the volume of waste available,” said Bailly.

Daher’s thermoplastics division in Nantes not only creates new parts for the TBM, but also components for other manufacturers, such as Dassault and Airbus, including the high-load wing rib—for which it just won the JEC Composites Innovation Award. “In Nantes we have one of the biggest thermoplastic aeronautic plants in the world,” said Bailly. “So we manufacture a lot of parts every year for the [Airbus] A350 program and other legacy programs. Unfortunately, we have waste. Even if the plant has worked hard to reduce the waste, there is still waste. There are two solutions: we pay to remove this waste from our plant, or we transform it. So, we decided to transform it. And actually, it’s something around three tons per year. But it could be up to seven tons per year.”

Part of Daher’s strategy, according to Bailly, lies not just in the reduction of waste, but also in developing the know-how to produce upcycled and more complex thermoplastic structures, as its B2B customers look at producing single-aisle Part 25 category aircraft out of a greater percentage of composite material than ever before. “They intend to put more composites, so more thermoplastics also, on their aircraft. With the high run rate of these programs of 80 aircraft per month, the volumes will be very high, so we have to prepare. That’s what we are doing today based on the A350’s low-rate program, to build that capacity and anticipation of those future designs.”

PILATUS RECYCLING

Pilatus Aircraft, based in Stans, Switzerland, has figured out that it creates more than 13,000 pounds of waste material in



Daher researchers are exploring effective ways to manufacture carbon fiber reinforced thermoplastic composite parts from scrap materials.

the process of producing components from carbon fiber web material pre-impregnated with synthetic resin, a common material used in composite manufacturing across the aviation industry—and used in both the PC-24 and PC-12. Pilatus goes through more than 90,000 sq m of prepreg material (delivered on rolls in refrigerated trucks) per year, according to supplier Zund.

In May, Pilatus kicked off a 32-month study in partnership with several Swiss institutions to investigate whether carbon fiber production waste can be recycled directly back into the aircraft construction process. Urs Thomann, director of technologies, processes, and sustainability at Pilatus, discussed its figures.

Recycling the material could significantly reduce production waste and potentially replace certain aluminum parts with carbon components, generating savings of up to 36 tonnes—nearly 80,000 pounds—of aluminum per year, Thomann told **AIN**.

The process that the study will investigate heats tacky prepreg scraps in a controlled setting, through which they will lose their adhesive qualities and be able to undergo further processing. Then, the material can be cut into small pieces and transformed into new components using a special pressing process before hardening and finishing. The current industrial

method used in aerospace doesn't directly transform unused prepreg waste into new components—most go through an intermediate step into pellets, which are used in injection molding tools to create new parts.

Researchers at Lucerne University of Applied Sciences and Arts and Inspire, a partner of ETH Zurich, will collaborate with Pilatus on the investigation. Backing for the project comes via Swiss innovation agency Innosuisse. "Close cooperation with our research partners creates ideal conditions for exploiting the potential of high-value waste materials to even better effect, and for quickly putting new solutions into practice," said Thomann.

Pilatus also has committed to using better materials within its cabin interiors. In particular, use of transparent F/Lab Natural Oil minimizes the release of harmful volatile organic compounds into the environment, and it's built to last: the oil-treated surface is scratch- and stain-resistant to work well in a high-use environment with minimal maintenance.

TEXTRON EVOLVES INTO GEN3

Like Pilatus, Textron Aviation has also incorporated materials into the fuselage and interiors of the Gen3 series Cessna Citations that leverage their composition

and design to reduce weight and thus gain extended range and/or payload. It's part of an overall sustainability vision that has also driven the use of Evergy and its New Green Energy program in Kansas, which involves wind energy along with other sources. In fact, in its first year using the program, Textron Aviation's Wichita facilities used 100% renewable wind energy.

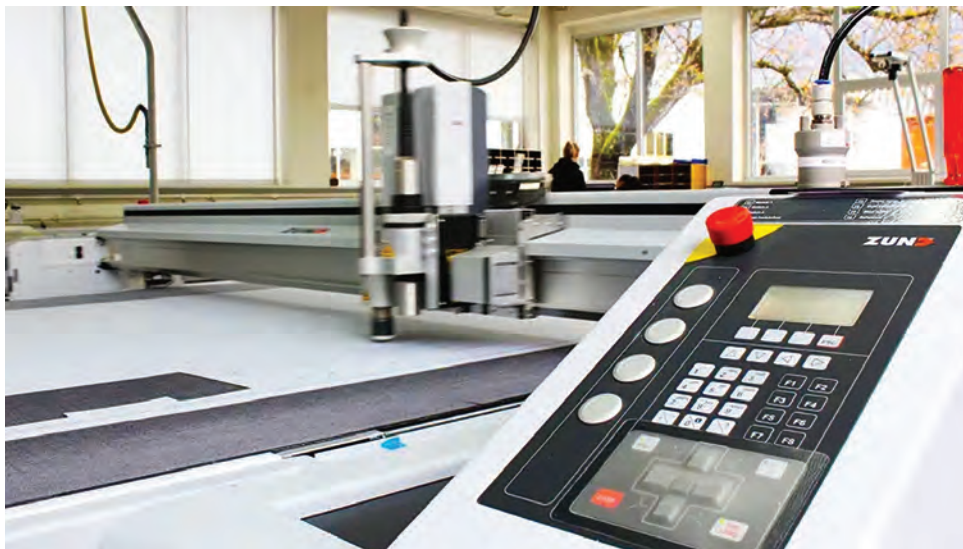
According to the company, "Many sustainable materials have inherent natural properties that make them ideal for aircraft interior design. Wool, for example, is sound-dampening and naturally flame-resistant. Cotton, linen (flax), silk, mohair, and bamboo are also naturally flame-resistant." The OEM has strived to incorporate materials that are "cradle-to-cradle certified"—meaning that at the end of their useful life, they biodegrade in a way that is safe for human health and the environment." Typically, these natural materials cost less to manufacture as well.

Part of the Business Aviation Community Commitment on Climate Change is the drive to increase fuel efficiency by an average of 2% per year between 2020 and 2030. As Textron Aviation has reported, the OEM is most of the way there now. This is important as jet-A prices continue to rise, responding to global events.

In 2010, Chris Hearne was leading program management on the Citation CJ series for Cessna Aircraft prior to its evolution into Textron Aviation. Now, Hearne is senior v-p of engineering for the Wichita-based manufacturer. In an interview at Aero Friedrichshafen in April, Hearne talked about the progression the CJ marque has made over the past 16-plus years, and its foundation in "voice of the customer."

"Customer feedback starts with our customer advisory boards, so that it's a formal process for us," he said.

Because of this feedback, in part, Textron Aviation uses green materials in textiles, carpets, and wood veneers throughout the Citation product lines.



A Zund digital cutting machine cuts prepreg material for Pilatus PC-12 and PC-24 parts.

“Sourcing biodegradable materials with long life spans and clean manufacturing processes, such as aviation-grade leather, contributes to mindful sustainable design,” according to the company’s mission statements on sustainability. “We are also conscious about selecting materials only from carefully managed forests, and leveraging surplus inventory to further reduce our environmental footprint.”

And like at Daher and Pilatus, recycling plays a part as well: “Textron Aviation has a robust recycling program that includes scrap metal and composite materials generated during the manufacturing process. This program reduces reliance on new natural resources. Additionally, landing gear, avionics, and electronics can be recycled and repurposed.”

The drive to improve sustainability also underpins the company’s workforce development, according to Hearne. “I’m looking for an engineer that remains



Textron Aviation Learning Zone trainees learn how to manufacture many types of parts.

curious, that remains not just curious about that system or that area that the engineer is working in, but what’s around that engineer. Meaning, if I’m a systems

engineer, I’m also interested in structures. From structures, I am interested in systems that attach to the structure. And [that process] leads to a better engineering function.”

WHAT’S NEXT?

While manufacturers across the industry drive more recycling efforts into their collective sustainability mission, specific programs targeting composite and other materials used continue to expand as companies realize real gains that go beyond the “feel-good” aura of reducing waste and an overall environmental footprint.

Look for components to evolve from traditional materials cut from raw blocks of metal, and for companies to leverage onsite 3D printing and other advanced fabrication methods to add even more value to the process of incorporating carbon fiber and thermoplastics. ■

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The DAS AVIATION logo features the company name in a bold, white, distressed font on a dark blue background. Below the name is a stylized graphic of a star and stripes, and a row of small white airplane icons.A square QR code with a white border, located in the center of the blue advertisement box.

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Examining the bifurcated market

BY ROLLAND VINCENT

As trusted advisers to business aviation leadership since 2009, we have continuously been asked to provide judgment calls to some of the industry's most vexing questions. From the aircraft OEMs, these questions have ranged from: What product do we need to become the market share leader in our segment? How big is the total addressable market for my new aircraft? What strategy do we need to penetrate market X to achieve a market share target of YY%? What is your forecast for the future? Are younger customers ever going to buy an airplane, or are they just going to share them? What if we see oil sustained at \$120 a barrel? Where do I find people

who know which way to turn a wrench to tighten a bolt? Are we operating in a bifurcated market? How sustainable is the upmarket? What "black swans" keep you up at night?

Many questions, fewer good answers. Answering them—backed with as much empirical data and analytics, our own proprietary indicators, and a healthy dose of judgment by experience—can be rejuvenating, much like the feeling you get after solving a complex puzzle.

Let's start with a simple question we're hearing a lot: Is business aviation a bifurcated market? If you are a manufacturer, an aircraft owner, a prospective buyer, or a lender/lessor

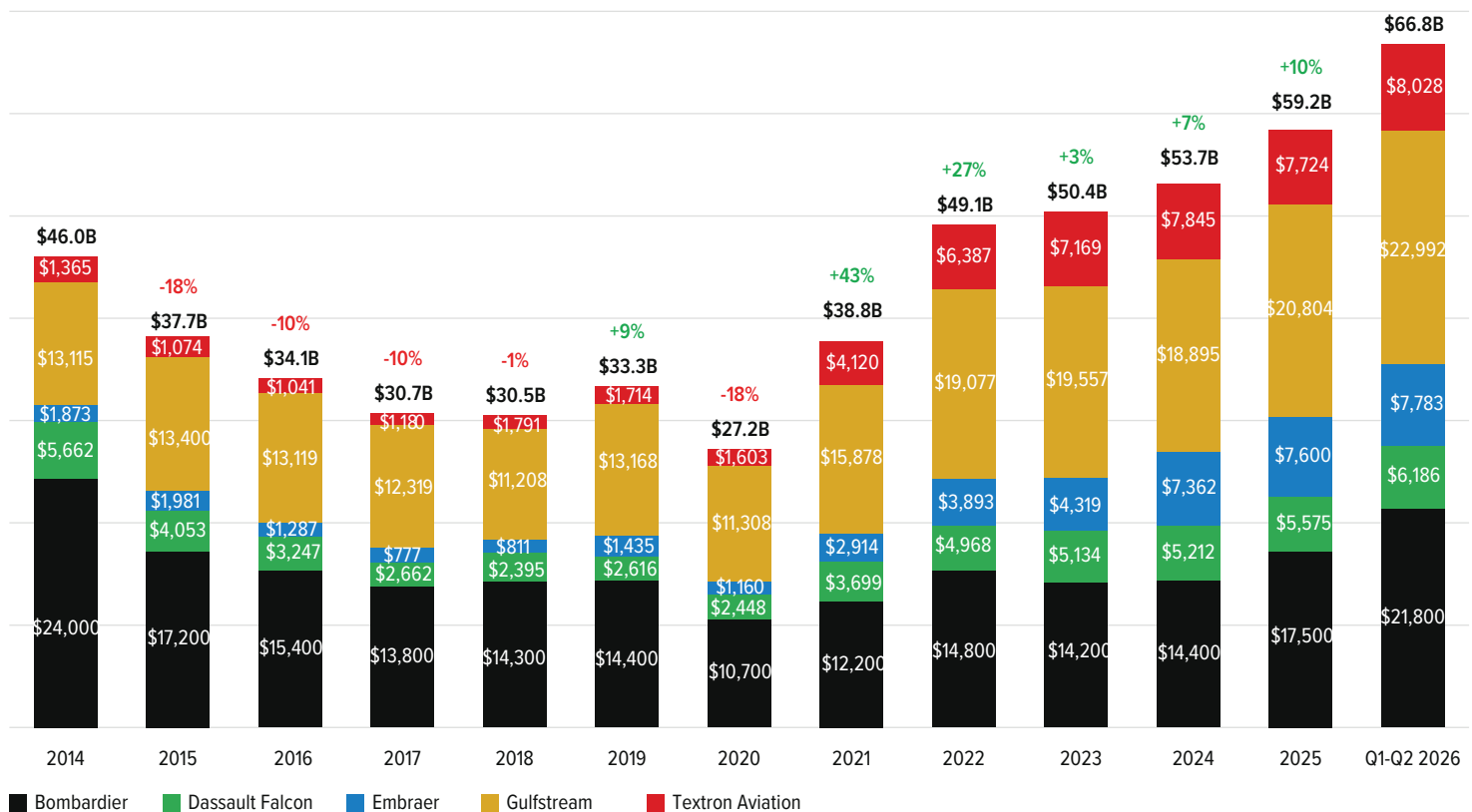
with skin in the game, this is a very important topic. Our one-word response? Yes.

In a perfect world, transaction prices for preowned aircraft of various vintages would be a good place to start. Too bad the data are not always so straightforward. Simply said, reliable preowned business jet pricing has long been the industry's Holy Grail—highly valuable, closely guarded, and notoriously difficult to find.

Peeling back the layers of the onion, we do see evidence that the larger and younger the aircraft, the more it retains its value. The International Aircraft Dealers Association's (IADA) Q2 2026 Market Report makes for some interesting reading, especially with

Primary Business Aircraft OEM Backlog Evolution

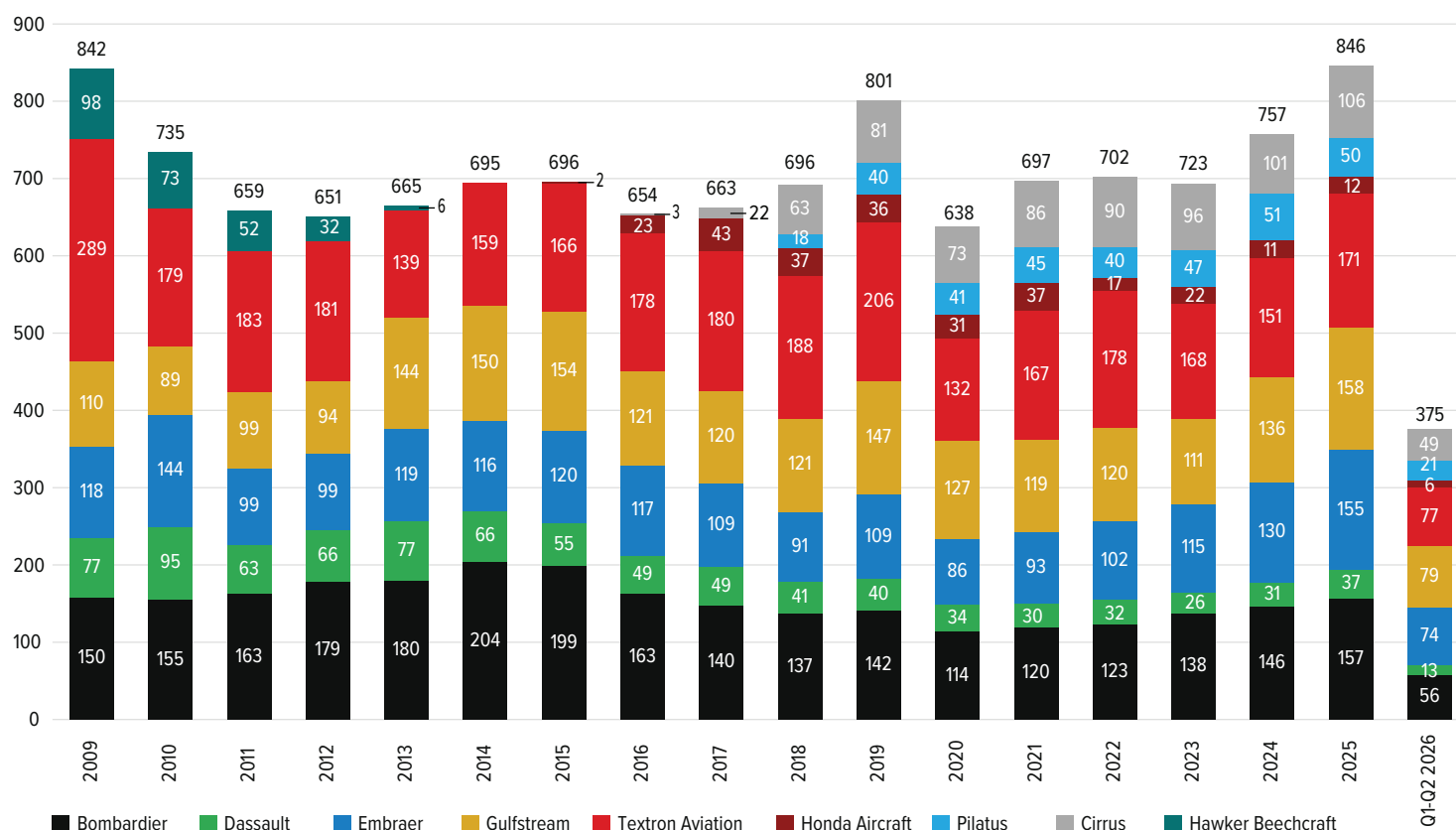
\$U.S. in Millions (except Totals)



Source: Rolland Vincent Associates using regulatory filings; RVA estimates

Business Jet Deliveries (Units)

Excludes Airbus, Boeing



Source: Rolland Vincent Associates using regulatory filings and company press releases; GAMA; RVA estimates

regard to price movements and pressures. IADA points to a firming preowned market, particularly for newer midsize and large-cabin aircraft. Asking prices are steady or rising, while price reductions have become less frequent, with buyers increasingly paying premiums for scarce, highly pedigreed aircraft. Bottom line: analysts still seeking the Holy Grail can continue their search for the closely guarded transaction prices at which aircraft actually change hands.

Amstat's Q2 2026 Business Aircraft Pre-owned Market Update highlighted important pricing and value indicators in the large-cabin/heavy-jet segment, with asking prices down 35% and transactions up 44% year over year (YOY) through the end of June 2026. This reflects a situation where the high-end market segment keeps getting scraped of attractive inventory.

In the meantime, median resale values—a broad-based but more accurate

indicator of actual transaction prices—have increased steadily for more than a year, ending June 2026 up 13% YOY. The result: prospective buyers at the top of the market are being frustrated by the fact that they can't always get what they want.

Our mood-of-the-market indicators from RVantage surveys suggest that their wait to enter the large-jet club, while maddening, may actually be worth it one day—existing owners and operators of large business jets make up the most optimistic segment we regularly monitor regarding current and evolving market conditions. And the beat goes on—firm order backlogs at the five largest aircraft OEMs reached \$67 billion at the end of the second quarter of 2026, up an impressive 13% year to date and up 24% since the beginning of 2025.

What's our outlook for the year? From our vantage point, we're predicting just under 900 business jet deliveries in 2026

with a combined list price value of more than \$30 billion. By any measure, this will be another solid performance for an industry that, like others, was reeling in an existential crisis as recently as 6.5 years ago. If achieved, 2026 jet deliveries will come in about 5% higher YOY on a unit basis. Backlog burndown? Nah.

With just over 26,000 business jets in service worldwide, the five largest business jet manufacturers are collectively managing roughly two years' worth of firm orders, a comfortable place to be.

Rolland Vincent is founder and president of Rolland Vincent Associates, a strategic advisory firm that provides proprietary market intelligence, forecasting, and executive counsel to senior leaders across the global business aviation industry. The organization is hosting its inaugural RVA Summit Feb. 15 to 16, 2027, at the Mayflower Hotel in Washington, D.C. ■

More than a bizjet: The heroes who bring patients home

BY AMY WILDER



When a toddler became critically ill overseas, it was the flight and medical crew who got her home.

Estelle Santiago blew out her birthday candles surrounded by people most children never meet twice: the flight nurse who had monitored her vitals for 18 hours over ocean and land, the physicians who consulted on her case across two continents by phone, and the pilots who flew an air ambulance to South America and back to bring her home.

Months earlier, nobody in that room was sure this birthday would happen.

The Bombardier Challenger 604 that carried Estelle out of Uruguay is, by most measures, the star of a rescue story like this one: a long-range jet built to function as an airborne intensive care unit, capable of keeping critically ill patients alive for thousands of miles. But the aircraft

is really only the vehicle. The mission belongs to the flight and medical crew.

For an industry that spends most of its time proving the value of business aviation to boardrooms and shareholders, Estelle's case is a reminder of a different kind of value proposition: what a well-run flight department, paired with the right medical expertise, can do when a child's life is the return on investment.

Estelle's family had traveled to visit grandparents who were serving a church mission. What should have been a routine trip turned into a crisis when the toddler suddenly fell ill. Doctors in Montevideo, Uruguay, diagnosed her with hemolytic uremic syndrome, a condition that attacks small blood vessels, can lead to organ

failure, and is often triggered by a bacterial infection. By the time she reached the hospital, Estelle was having seizures. Her kidneys had failed. Then her heart and lungs began to fail too.

Her parents, thousands of miles from home, watched their daughter's condition spiral with no way to get her the specialized care she needed. They contacted Intermountain Health's Transfer Center in Salt Lake City, Utah, hoping someone could bring her home.

That call set off a chain of paperwork. Health insurance approval came through within hours, but international landing permits can take a week to 10 days to process—time the critically ill toddler didn't have.

The permit came through in 24 hours instead, fast enough to change the mission from a question of whether they could get her home to a question of how quickly.

A pediatric critical care physician from University of Utah Health and Intermountain Primary Children's Hospital stepped in as medical control for the mission, consulting directly with physicians at British Hospital of Montevideo on a question more vital than the logistics: could Estelle physically survive the flight home? The Uruguayan team wasn't sure. The U.S. team would need to coordinate in-flight care from thousands of miles away, carried out over international airspace.

Intermountain had added the Challenger 604 to its fleet in 2022 specifically for long-range international transports and organ retrievals. With a range of about 4,000 nm, the aircraft has a cabin large enough to accommodate two patients and the equipment required for complex mid-flight procedures. For shorter North American missions, the organization flies a Textron Aviation Cessna Citation CJ4; internationally, the Challenger does the heavy lifting.

But ask anyone who has flown one of these missions what actually got Estelle home, and the aircraft is almost an afterthought. On January 9, a three-person medical team and four pilots launched for South America, spending the night in Peru before continuing to Montevideo. When

they reached Estelle, she was intubated, sedated, and dependent on multiple IV drips. Her continuous dialysis would have to stop for the length of the journey home.

Two days later, the team began the trek north: back to Peru to refuel and swap out pilots, on to Brownsville, Texas, for U.S. customs, and finally to Salt Lake City. Flight nurse Rose Linsler stayed at Estelle's side for the full 18 hours in the air.

"The speed and efficiency necessary to make the transport safe, rapid, and successful were extraordinary," Linsler said. "On Wednesday night, we first heard about our patient. By early Friday morning, we were departing for Uruguay, and by that Sunday night, Estelle was in her ICU bed at Primary Children's Hospital getting the care she needed."

For Estelle's father, Michael, the arrival of the Challenger and its crew was the moment the crisis started to turn. "The moment the Intermountain team landed there, we felt relief and gratitude beyond words, like the cavalry had arrived," he said.

That relief didn't fully set in until the family was back on U.S. soil. He described watching his daughter wheeled into her room at Primary Children's Hospital as the first moment he and his wife, Ellie, felt they could breathe, although they knew there was a long road ahead.

Estelle's flight is one version of a mission Intermountain runs routinely, if not

always at this level of urgency. The air ambulance program pairs adult, pediatric, neonatal, and high-risk nurses and paramedics with aircraft equipped for a variety of specialized needs.

A 24/7 TeleCritical Care service lets flight crews connect instantly with board-certified critical care physicians, including secure video consultation, so clinical decisions get made in real time rather than after landing.

None of that shows up in a passenger's view of a business jet. Since the program began, Intermountain crews have brought patients home from Canada, Mexico, Japan, Guam, Tahiti, Samoa, Chile, Brazil, Puerto Rico, Ireland, Qatar, Thailand, Micronesia, Jordan, Ecuador, South Korea, and Uruguay, among other places.

This reach depends as much on relationships and clearances as on aircraft specs. The program holds independent accreditation from the Commission on Accreditation of Medical Transport Systems, the European Aero-Medical Institute, and the Business Aviation Safety Consortium.

Business aviation spends a great deal of energy defending its value against critics who see private jets as a luxury. Missions like Estelle's are a case study in the other side of that ledger: a flight department, an aircraft, and a highly trained crew, deployed because nothing else could have gotten a mortally ill child home in time.

At Primary Children's Hospital, Estelle spent several weeks moving from critical care toward rehabilitation before finally going home. Partway through her recovery, her parents sent the flight crew a video update. Linsler still remembers watching it.

"No ventilator. No continuous EEG. No dialysis," the nurse said. "Just a toddler taking tiny sips from a spoon. It was wonderful."

By mid-year, Estelle was closing in on a full recovery. "She has a few lingering problems, but nothing that will hold her back," Ellie said. "Estelle is on track to make a full recovery, and we're so grateful."



On track toward a full recovery, Estelle Santiago made a life-saving journey on a business jet.

Changing the gotta-land-it mindset

BY JULIE BOATMAN



Understanding actual runway conditions and how they will affect the flight, preferably well before takeoff and landing, is critically important.

It's a standard pilot nightmare: you touch down after a long but satisfying flight, and when you go to bring the airplane to a stop, the equipment fails you: brakes go soft, reversers don't actuate, or beta mode won't engage. While many factors can contribute to a runway overrun during landing, human error on the part of the flight crew is the most likely cause. Instead of simply making runways longer or installing arresting devices or materials, we can examine these situations to inoculate ourselves against these lapses.

An exploration of recent landing accidents among multiple classes of business jets—and a couple of instructive regional airline accidents—finds the hazards cut across single-pilot and multi-crew

operations. Professionally piloted aircraft do not have any special protection from these events. It boils down to this: the failure to fully consider actual runway conditions and understand their knock-on effects, combined with fatigue and that siren-song desire to complete the mission.

STICK TO THE PLAN

A CommutAir (United Express) Embraer ERJ 145 overran the runway at Roanoke, Virginia (KROA), on Sept. 24, 2025, at 9:17 p.m. local time, nearly two hours past the end of civil twilight. The flight had been delayed about two and a half hours before its departure from Washington Dulles International Airport (KIAD) while resolving maintenance issues, and the

crew briefed the thunderstorm potential approaching Roanoke, according to the NTSB preliminary report.

When storms materialized as predicted, the crew abandoned the planned approach to Runway 6 and switched to Runway 34, based on reports from previous flight crews of precip on the approach to 6. The captain asked for updated landing numbers with reduced braking action for the wet runway (at level 5 RCC, indicating "good" braking action), which showed a slim margin but was deemed adequate (200 feet without reversers). The captain also briefed a go-around and diversion to Greensboro's Piedmont Triad Airport (KGSO) if conditions warranted.

Per the NTSB report, he didn't choose that alternate option: "On short final, the rain intensity increased, and the captain requested windshield wipers at high. As the airplane descended below 500 feet, the FO [first officer] observed that they were high on the precision approach path indicator (PAPI) and then observed the captain correcting the flight path, but recalled they were still high as the airplane crossed the threshold. After crossing the runway markings, the FO called for a go-around, but the captain continued. About halfway down the runway, the FO called for a go-around a second time, but the captain continued."

After touchdown, maximum braking and reverser deployment weren't enough to keep the ERJ 145 from overrunning the pavement into the EMAS material at the end under the yellow chevrons. No one was injured in the stop or subsequent evacuation, and the aircraft itself only sustained minor damage.

The plan had been to make an attempt to land at Roanoke, but when the stabilized approach didn't happen, the decision to continue rather than go around as briefed meant that the slim margin deteriorated into nothing. While information wasn't provided on the crew's specific experience, they were professionally trained and acting according to operational procedures until that system broke down.

DON'T RELAX BECAUSE YOU'RE HOME

Another recent accident involving a Cessna Citation CJ4 shows how returning to the aircraft's home base on a routine positioning flight in clear, calm conditions can also end with major damage to both the airplane and structures on the ground.

The pilot was the sole occupant of the CJ4, flying back from maintenance at St. Louis Regional Airport (KALN) near Alton, Illinois, to Mayfield, Kentucky (M25). He set up for a straight-in visual approach to Runway 19, which was just over 5,000 feet

in length. He noted that he was a bit late in setting up the approach but maintained it was still stabilized, according to the NTSB preliminary report.

The airplane touched down on the runway centerline, and the pilot noted "that he deployed the ground spoilers and pressed firmly on the brakes; however, he observed no braking action as the airplane continued to roll down the runway," according to the report.

"The pilot applied greater force to the brakes; however, the airplane began to veer to the right, and there was still no observed slowing of the airplane. The pilot determined there was insufficient runway for a go-around and decided to continue to roll down the runway with the engines at idle, continuing to press firmly on the brakes, correcting the airplane back toward the runway centerline, and applying downward force to the yoke. The airplane rolled off the end of the runway, went through the airport's perimeter fence, crossed a road, and impacted a house."

Standard landing distance at sea level on a dry runway in calm conditions for a CJ4 runs less than 3,000 feet at maximum landing weight—and it was not noted, but unlikely, that the CJ4 in question was close

to that. Even with reduced braking power—and in a post-maintenance flight that is possible—that should leave adequate margin in normal circumstances.

CROSSWIND PROBLEMS

Knowing the limitations of the aircraft, as well as the company's ops specs, should be part of a crew's safety plan and should serve to head off an incident before it begins. However, when a crew bypasses those parameters to accomplish the mission, trouble can occur, as it did in this Honda Aircraft HondaJet crosswind excursion from January 2024.

The Part 135 flight approached Orlando International Airport after briefing winds there exceeded the published crosswind component of the HA-420, which is 20 knots. While sustained winds were reported at that value, gusts to 23 and 24 knots had been present in most of the reports before the jet's touchdown at KMCO.

"The PF [pilot flying] continued the approach and just about when the airplane was at touchdown the controller broadcast on the frequency for another airplane that was on approach that the wind was from 290° at 20 knots, gusting to 24 knots,"



An exceedance of the published crosswind component was a likely factor in a runway excursion at Orlando International Airport that damaged this HondaJet's left wing and spar.



This Citation X landed at Telluride, Colorado, after encountering gusty, variable winds during the approach and touchdown, leading to a runway overrun.

according to the NTSB's final report. "After the airplane touched down, it began drifting to the left side of the runway.

The PF applied left aileron control input, deployed the speedbrake, and applied right rudder; however, the airplane departed the runway and impacted a frangible runway distance-remaining sign. The PF then corrected the airplane to the right, returned it to the runway, and taxied off onto a taxiway, where the pilot stopped the airplane and evacuated."

While the crew and two passengers were not injured, the airplane sustained substantial damage to the left wing where it had hit the airport sign. The original HondaJet allowed for a maximum crosswind component of 20 knots, placing conditions at Orlando that day into the danger zone. A pilot's skill in mitigating a stiff gust plays a role—but no amount of physical prowess can offset an airplane's limitations.

MOUNTAIN FLYING

Gusty winds also played a part in another accident at Telluride, Colorado, earlier this year. Mountain operations intensify the threat under normal conditions, but unforeseen gusts can also take a pilot by surprise—as witnessed by the crew of a Cessna Citation X flying into KTEX.

On Jan. 13, 2026, just after noon on a sunny Tuesday, the pilot flying encountered an unexpectedly strong crosswind

gust after touchdown. The crew had noted turbulent conditions resulting in five- to 10-knot airspeed fluctuations during the descent, the result of a northwesterly wind. The landing setup for Runway 9 was based on normal operational procedures for the airport, with the reported wind on the ground from the north (020 at 4 knots) at the time of landing.

A previous metar at 11:55 a.m. local time showed 270 at 4 knots gusting to 17 knots, demonstrating the changeable nature of the winds there—not uncommon for Telluride, given its location on a mesa shelf in the valley.

TURBOPROP PROTECTION?

Turboprop aircraft—whether owner-flown or professionally crewed—appear to offer one (or two) insurance policies against a runway overrun: the big fan(s) used to propel the aircraft that can switch to beta mode. However, they too are not immune from these incidents, as indicated by the February 2026 accident that caused substantial damage to a Fokker 50 landing at Aden Adde International Airport in Mogadishu, Somalia.

In fact, the International Civil Aviation Organization (ICAO) has published data showing that turboprop aircraft are statistically more prone to runway overruns. Its Global Runway Safety Action Plan, released in February 2024, offers the results from the Second Global Runway Safety

Symposium, at which the organization collated recommended actions for reducing the rate of these incidents and accidents around the world. Though the report is recent, the causes remain the same—and the good news is that many lie within the pilot's control.

- » Using standard operating procedures, taking into account aircraft limitations, crew limitations, weather conditions, runway surface, and the airport environment
- » Ensuring adequate training for crews on stabilized approaches
- » Maintaining a safety culture on the flight deck that supports the decision to go around or choose another airport

The equipping of aircraft with Runway Overrun Awareness and Alerting Systems (ROAASs), in which the aircraft's overall energy state is calculated against the runway available on an approach, is another way in which technology can assist the pilot in understanding the conditions.

Such systems are already found on many new business jets, including (but not exclusively) the Embraer Phenom 100EX and 300E, Cessna Citation Latitude, Dassault Falcon 6X, and Gulfstream G700. These systems continuously calculate the aircraft's stopping distance in real time, giving critical guidance to the pilot on the likely outcome of the approach in progress.

Even with the right technology, it's still up to us pilots to make the right choice. ■

Intangible return: Rethinking the value of business aviation

BY DALE SMITH



According to Bas de Bruijn of Clay Lacy Aviation, business aviation's intangible value comes from what it does for the people in back of the airplane.

In 2015, not long after being promoted to the director of aviation for a Fortune 100 tech giant, Bas de Bruijn (now lead G550 captain and the head of aviation advisory services for Clay Lacy Aviation) was confident that he had “all the answers” to any question about operating a global flight department.

“I had a deep background in international flight operations. I knew everything about our airplanes and how many hours they flew. I knew how to hire pilots and crews. I knew how to create a budget,” de Bruijn said. “Then, not long after a

larger corporation acquired our company, the CFO asked me what the ROI was on our aircraft.

“I struggled to give him a good answer,” he continued. “I found that while I knew business aviation, I was not very well versed in the languages of the board and C-suite. It made me a bit insecure.”

De Bruijn added that he could comfortably share the benefits of saving time, security, safety, convenience, and all the other paybacks that business aviation had been built on but none ever fully answered the “we need to make a case for every dollar

we spend” return on investment (ROI) question. And knowing that the new parent company's culture was strong on justifying expenditures, he knew the question wouldn't go away.

So, faced with that never-ending prospect, de Bruijn decided to gain the knowledge he needed by earning an executive MBA at Nyenrode Business University in the Netherlands, his home country.

“I devoted every class in the program to corporate aviation,” he explained. “How could I apply corporate finance, human resources, strategic management, and

leadership principles to corporate aviation? No one had ever done it before.”

He was quick to find out why. In fact, when he asked the professor leading his corporate finance class about how he could determine the ROI for business aviation, the instructor’s answer was, “You can’t. Because they are intangible benefits, you can’t put a dollar sign on them.”

“He was right. But one of my other professors, Dr. Bas Kodden, put me on a different path,” de Bruijn said. “I had to look at it from the point of view of what the use of the business aircraft does for the people in the back of the airplane. That’s what it’s all about.”

REDEFINING THE VALUE OF BUSINESS AVIATION

De Bruijn said the realization was like flipping a switch and seeing business aviation in a whole new light.

“In business aviation, how did we always overlook the human element in the value equation? How does having access to an airplane affect people’s well-being?” he said. “The focus had always been on the cost side. We needed to shift from basing the aircraft’s ‘worth’ on shareholder value to one based on stakeholder value—and the most important stakeholders in a company are its employees.”

Two tools de Bruijn used to develop his new “ROI value scale” were the Job Demands-Resources (JD-R) and the Person-Environment Fit (P-E Fit) models. In addition, he used material he found in a proposed research framework titled “The Business Travel Stress Model.”

“What that early research showed me was that business travel stress isn’t really about hitting some magic number of trips,” he said. “It’s the accumulated wear of business travel itself, and it gets more pronounced when people are crossing multiple time zones on a frequent basis.”

De Bruijn added that, in his research, the JD-R model further explains the dynamic relationship between job demands,

resources, and a person’s well-being, which, in many instances, can cause significant stress, leading to emotional exhaustion and burnout.



BAS DE BRUIJN

CLAY LACY G550 LEAD CAPTAIN AND HEAD
OF AVIATION ADVISORY SERVICES

“The focus had always been on the cost side. We needed to shift from basing the aircraft’s ‘worth’ on shareholder value to one based on stakeholder value—and the most important stakeholders in a company are its employees.”

By using the two models to define the three primary areas of stress facing business travelers—Pre-Trip, During Trip, and Post-Trip—de Bruijn was able to collect insights from frequent travelers on how the availability and non-availability of business aircraft affected each person’s ability to mitigate the various stress factors.

“I used that to develop a framework and then was able to interview a variety of different managers at different

levels within our company,” he explained. “From that, I created a qualitative research study based on the analysis of those transcripts.”

MOVING AWAY FROM BOTTOM LINE

De Bruijn said findings from his studies suggest that access to a corporate aircraft may help mitigate business travelers’ stress and work-family conflicts, potentially enhancing overall well-being.

In addition, participants in the study emphasized their relief from time pressures and greater control over their travel schedules, highlighting the tangible benefits of the familiar, private environment of the company’s airplane.

As an added benefit, they also shared their personal feelings of “privilege, motivation, and organizational connection,” suggesting that the positive psychological effects of having access to a corporate aircraft may extend beyond stress reduction to strengthening an employee’s ties to the company and aiding in the retention of these key individuals.

“I think we need to change the conversation and move these aircraft from logistics tools and reframe them as human capital tools,” de Bruijn said. “You need to look at more than hours flown and the costs and start having the conversation about people and the airplane’s impact and making their jobs and lives easier.”

“We have to ask, ‘Is there an opportunity for people to start using the aircraft that currently cannot, and what benefits would that access bring?’” he continued. “I would argue that if you have some key personnel who travel a significant amount of time, there’s likely a very good case for them to have some access to the company aircraft.”

De Bruijn said that his own flight department (and the way it used its aircraft) was a textbook example of unfulfilled opportunities.

“After the university accepted my master’s thesis, I shared my final findings with our company executives along with some

suggested changes we should make in our operation,” he said. “It was very well received because it provided demonstrable benefits. At the time, we weren’t flying enough, and that made making a case for a positive bottom line very difficult.”

One thing he highlighted was how the company’s then-current requirements for aircraft use worked against the value the aircraft could deliver. A case in point was when the company’s team was traveling to a supplier meeting in Silicon Valley: two executives flew on the company jet, while the rest of the team took a commercial flight.

“That’s not cost-effective and the wrong way to look at what value an airplane can deliver,” de Bruijn said. “The airplane is going anyway, so just put everyone on it.”

“What I proposed was to expand the authorization base of who could use the airplanes,” he continued. “Allowing more people to have access to the aircraft increased our load factors and seat hours on each flight, which enhanced the collaboration and internal alignment among our team members. It redefined how we operated.”

PREPARING FOR THE QUESTION BEFORE IT GETS ASKED

Instead of waiting for someone from the leadership team to ask about the flight department’s ROI, de Bruijn shared some thoughts on how you can take a proactive role in becoming your flight department’s “value” ambassador.

“Be prepared to propose how you can make a value proposition around the flight department. But first, you need to be in tune with the company’s near-term business goals, so talk to your executives. You can’t be working in a silo,” he said. “Are there any active mergers or acquisitions, or expansion activities that will require frequent trips to new locations? Not everyone is privy to that kind of information. So, tell your executives what you are trying to accomplish.”

Further, think broadly, he advised. “Find new ways that the aircraft can be leveraged for significant advantages. Matching the goals of the company to how the aircraft can be used is something none of the aviation schools teach—but they should,” de Bruijn said.

Discussions at flight departments tend to center on costs and the balance sheet, he said. “Remember, cost is loud, but value is quiet,” de Bruijn continued. “That’s the wrong way to look at it. The real-people-value side of it isn’t highlighted enough in business aviation. That’s what directors of aviation need to present when they talk to the principals during budget reviews. It’s a discussion we must have and the change in thinking we need to promote.”

While de Bruijn feels his master’s thesis (which was revised with co-authors A. Oosterhoff and B. Kodden,

and published as a peer-reviewed article in the 2026 edition of the *Journal of Air Transport Management*) is a solid start toward reshaping how companies make a sustainable case for their aircraft’s value and ROI, his work is just beginning.

“The research is now qualitative and exploratory, so it’s indicative rather than conclusive,” he said. “We have a broader ...study underway now, and I hope to get more executives from more companies involved. The more data we have, the stronger a value case we can build.”

De Bruijn said that to continue expanding his data, he needs to hear from the executives and key personnel whose travel the research is really about. “Their experience is the data,” he said. To take part in the study, visit <https://flyingfit.limesurvey.net/FlyingFit?lang=en&new-test=Y>

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Above & Beyond

AIN's annual product support survey for aircraft, avionics, and engines recognizes individuals who went above and beyond for their customers. Below is a list of those highlighted from factory-direct and authorized service providers, along with some of the comments that earned them recognition.

GREGORY ALLEN (SKYTECH)

"Always helps and knows."



SUNE ANDERSEN (BOMBARDIER)

"He consistently provides outstanding support, responds quickly to urgent situations, and shows strong professionalism and commitment. His efforts have made a clear positive impact on aircraft readiness."

ETHAN AU (BOMBARDIER)

"Ethan is very helpful and very resourceful whenever I needed any form of assistance with aircraft issues."

JAMES BEEBE (GULFSTREAM)

"Always answers the phone no matter the time of day."

ANDERSON BELO (EMBRAER)

"Belo is truly hands-on, always helping us in all that matters."

RICK BEST (TEXTRON AVIATION)

"Rick is the best field service rep we ever had in all my years in corporate aviation!"

HANNES BESTER (BOMBARDIER)

"Effective and prompt feedback and assistance, even when on leave! Pleasure to work with!"



KEN BLAD (BOMBARDIER)

"Ken has consistently been a reliable and valuable resource for our team. He is always knowledgeable, calm, direct, and helpful. His understanding approach and willingness to support us through technical questions and urgent situations have made a significant difference."

KEVIN BOURLAND (STANDARD AERO)

"He has gone above and beyond to ensure, within his ability, that the event is smooth and cost-effective."

MICHAEL BOWEN (BOMBARDIER)

"Always there when you need help. Huge help in keeping the aircraft flying."

RENELLE BROCHU (BOMBARDIER)

"Great customer service, helped us solve spare part issue for AOG."

DAVID CARMAN (MECANAIR SWITZERLAND)

"Very good maintenance and CAMO specialist."

FREDDY CARMEN (BOMBARDIER)

"Freddy is consistently involved and highly helpful when assisting with disputes or technical issues. His involvement always leads to fair resolutions, which helps ensure smooth and successful transactions."



SANTIAGO CAROL (WEST STAR AVIATION)

"Best customer-tailored service."

JOE CARR (ONFLIGHT)

"Broad-based customer support/complimentary feedback."

HENNING CHRISTEN (BOMBARDIER)

"Super dedicated, very efficient, and customer-focused—an absolute star and asset for Bombardier."

STÉPHANE CLÉMENT (LUFTHANSA TECHNIK)

"Stéphane knows the system, knows the cabin is more important than engines, and works quickly to identify the fault and get us pointed at a resolution."

MATTHEW COLBORNE (BOMBARDIER)

"It is not only looking after the hardware itself, but also looking for the human factor."

LUIZ FELIPE COLLODORO (BOMBARDIER)

"Any time of day or night, seven days a week, Felipe is always attentive and looking to help with any problems the aircraft may have."

RONNIE COOK (BOMBARDIER)

"He responds immediately. No matter how large or minor the issue is, he is always helpful, providing direction to fix the problem."

BRIAN COTTON (BOMBARDIER)

"He is impressive, to say the least. His knowledge on all platforms we operate is awesome. Anytime I have a technical question about an aircraft, he knows exactly where to go."

MÁRIO CRUZ (EMBRAER)

"Always available to solve the problem."

MARK DAVIS (DUNCAN AVIATION)

"Mark has supported us last minute multiple times. He brings a great attitude to all he does and calmly works through any issues that come up. Great at communicating and juggling multiple items at a time."

PARAS DIXIT (EXECUJET MRO)

"Excellent technician, great support and communication."



ALICIA DONALDSON (TEXTRON AVIATION)

"Stellar customer service."

DAVE DUNCAN (SOUTHWEST AVIATION SPECIALTIES)

"Very knowledgeable, responsive, and helpful."

JAMES EATON (PRATT & WHITNEY)

"Exemplary customer support, always puts the customer first, very responsive, makes it happen!"

PETER EMPSON (BELL)

"Very helpful whenever we had a problem."

MARCO ESPEJEL-ORTEGA (LEONARDO)

"Always supporting, professional worker. Tracks every request for support from start to finish."

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"Ian frequently goes the extra mile to ensure our needs are met. He responds promptly every time and occasionally even works outside of 'normal hours' if the situation calls for it."

KERRY JONES (LEONARDO)

"Kerry is extremely professional, always available to help customers."

WILL JONES (GOGO)

"Extremely knowledgeable in his role as regional sales manager, always available for help and support, and provides excellent service."

ASHOK KAPADIA (EMBRAER)

"Hardworking, diligent, and a tremendous resource that far exceeds expectations. Always (24/7) there to answer the phone and help."

NIKITA KHARKOV (BOMBARDIER)

"Great support from him."

MATTHIAS KLEMM (BOMBARDIER)

"Matthias is consistently flexible and accommodating when it comes to rapidly changing maintenance plans. He is always willing to assist with any questions, even those outside the scope of proposals. Matthias is one of the first to step in, offering prompt support and helping to resolve matters efficiently."

SCOTT KOEHLER (WEST STAR AVIATION)

"Understands the big picture: schedule, costs, warranty, long-term service."

GEORGE LAITEN (WEST STAR AVIATION)

"George understands what it takes to ensure that, no matter the size and scope of a maintenance event, the customer has a great experience and the work is done right the first time, every time."

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RICHARD MANTHE (BOMBARDIER)

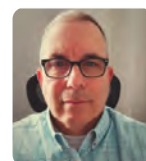
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JAVIER MATOS (LEONARDO)

"Javier has been a very kind, respectful, and responsible person—always attentive to the client's needs."

MATT MCCAULEY (BOMBARDIER)

"Matt has worked tirelessly to support our aircraft. Very knowledgeable with all models of Bombardier products, fair with adjudication, always willing to help, all-around good person and great tech."

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"Dan is a consummate professional, trustworthy, dedicated, knowledgeable, cares for his customer, and focuses on meeting the customer's needs."

**LUIS MENESES (TEXTRON AVIATION)**

"Always available and ready to try and assist in any technical issues."

LESLIE MIKOLAJCZYK (BOMBARDIER)

"Leslie has provided outstanding support to me when dealing with BBD issues concerning parts, shipping, and service centers. He always answers calls no matter when they are."

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"Luxmi demonstrates an exceptional understanding of avionics and mechanical systems. She consistently maintains clear, professional communication during high-pressure situations, such as unexpected maintenance delays. Great support."

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"James does a great job with Team Mustang and is always available for support!"

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"He works tirelessly to help us with our technical queries and works with Leonardo Italy to keep things moving."

QUINTIN OSTRANDER (GULFSTREAM)

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"Jürgen Peters is an excellent representative of Honeywell for Europe because he brings extensive industry knowledge, many years of leadership experience, and a deep understanding of the European markets."

GARY POTEET (PRATT & WHITNEY)

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"Vinny is one of those special people who always gets results. His willingness to go beyond his job scope and provide excellent customer service above and beyond the norm is greatly appreciated."

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"Came back from retirement and just really delivers. A real pro."

RENÉ SCHOENFELDER (BOMBARDIER)

"He is always happy to help, and very thorough and service-minded and knowledgeable."

ARIOVALDO SILVA (SAFRAN)

"He carries the company on his own in South America."

REMY SINGH (BOMBARDIER)

"Remy Singh has provided outstanding service by demonstrating a combination of product knowledge and immediate responsiveness. He consistently addresses customer needs through prompt and thorough guidance."

TIM SOBANIA (DASSAULT)

"Always willing to help, educate, and assist our maintenance team."

JOHN STAMATELOS (BOMBARDIER)

"We put our Challenger 604 in for 96/48, and John practically oversaw the project with us. He is an amazing representative."

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"Paul is Johnny-on-the-spot! He works tirelessly to ensure we are all set with our aircraft. Paul is the tech rep everyone wishes they had."

MARK VERMETTE (BOMBARDIER)

"Mark is always available and has been a great source of information for the Global 7500. Having Mark involved from when the aircraft was delivered until now has made the Bombardier experience so much better."

BILLY WARREN (BOMBARDIER)

"Always available and goes above and beyond!!!"

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DALI XU (BOMBARDIER)

"Regularly communicates with customers proactively, and the service response is prompt."

JONAS YAP (FOKKER SERVICES GROUP)

"Great support for MRO."

PAUL YOVICH (BOMBARDIER)

"Paul Yovich is hyper focused on providing exceptional Bombardier customer support." ■

TSB: rotorcraft more prone to loss-of-visual-reference accidents

BY AMY WILDER



This Airbus AS350B2 departed the Russell Island camp on April 25, 2021, and crashed on Griffith Island in flat-light and whiteout conditions.

Loss-of-visual-reference accidents are more likely to involve helicopters than airplanes, according to a series of Transportation Safety Board of Canada (TSB) investigations. Reviewing 5,177 Canadian airplane and rotorcraft accidents recorded from 2000 to 2021, investigators found a total of 95 involving a loss of visual reference: 68 of 4,378 airplane accidents versus 27 of 799 helicopter accidents—a rate more than double that of airplanes.

The TSB has linked part of that disparity to Canadian regulations that do not require commercial helicopter operators to train pilots or equip aircraft to recover from inadvertent flight into instrument meteorological conditions (IIMC), relying instead on an avoid-at-all-costs strategy that investigators have called unrealistic.

Four recommendations were issued by the TSB to Transport Canada as a result of these investigations: require commercial helicopter operators to ensure pilots possess the skills to recover from IIMC; require implementation of technology to assist with IIMC avoidance and recovery; require

single-pilot operators under Subpart 604 and Part VII of the Canadian Aviation Regulations (CARs) to develop standard operating procedures (SOPs) based on corporate knowledge and industry best practices; and enhance requirements for helicopter operators conducting reduced-visibility operations in uncontrolled airspace.

Some Canadian operators have voluntarily gone beyond current regulatory minimums, the TSB found. It cited enhanced winter training, close monitoring of pilots for pressure to fly in marginal conditions, simulator-based IIMC recovery training, and dispatching aircraft equipped with radar altimeters and synthetic vision systems as measures already adopted by some operators.

The recommendations draw heavily on three recent TSB investigations into VFR helicopter missions that lost visual reference in flat-light and whiteout conditions. All three resulted in accidents—one fatal.

On April 25, 2021, a Great Slave Helicopters 2018 Airbus Helicopters AS350B2 departed a remote polar bear research camp on Russell Island, Nunavut, on a

day VFR flight to Resolute Bay Airport, 87 nm to the northeast. On board were the pilot, an aircraft maintenance engineer, and a biologist. Approximately 45 minutes later, while crossing Griffith Island near its highest terrain, the helicopter struck snow-covered ground at about 370 feet msl, shortly before reaching a ridgeline near the island's high point, 12 nm from Resolute Bay. The crash and post-impact fire destroyed the helicopter, killing all three aboard. Investigators determined that the uniformly snow-covered, featureless terrain, an overcast sky, and nearby snowfall likely produced flat light and whiteout conditions, and that the wreckage orientation was consistent with the pilot attempting a 180-degree right turn after losing visual reference.

The commercial pilot had flown approximately 4,050 total flight hours but had only 16.4 hours of instrument flight time, just 3.5 of which had been logged in the five years before the accident. It was his first winter or spring deployment operating above the tree line from a remote camp.

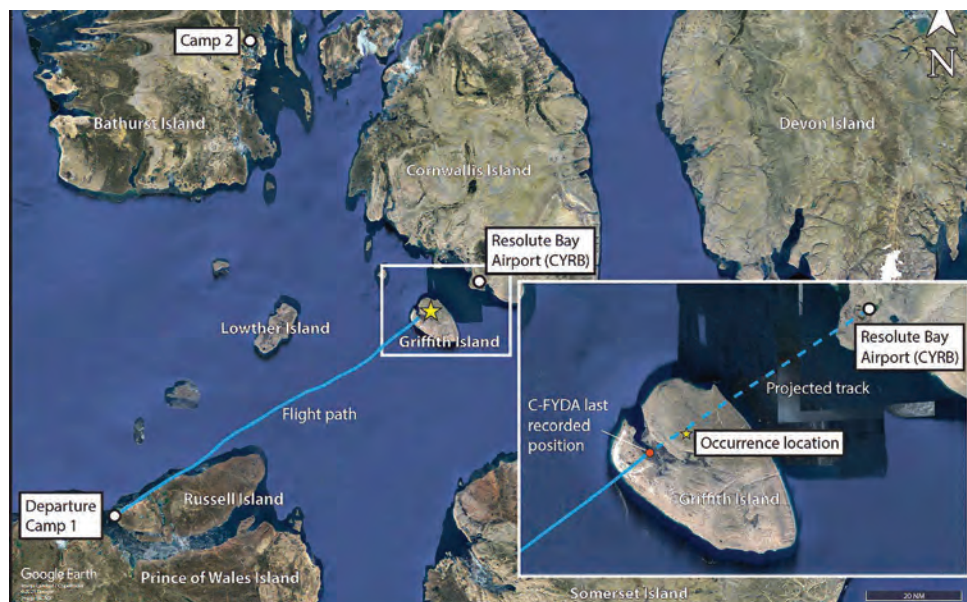
Investigators found that no requirement existed for the pilot to be trained in IIMC recovery, nor for the aircraft to carry equipment that could assist with it. The helicopter did not have a radar altimeter, autopilot, or stability augmentation system. None of these are mandated for day VFR operations. The operator had adopted the avoidance-only philosophy. According to the report, management believed that IIMC training could make pilots overconfident about flying in deteriorating weather and considered VFR-only pilots unlikely to have the proficiency to hand-fly an instrument recovery.

A 2015 accident involving a predecessor company also involved an AS350 in flat-light conditions near Deadhorse, Alaska, and prompted an internal review that found the original company's manual had required flight instruments and night-VFR-style planning in whiteout conditions. Those requirements were no longer part of the operations manual by the time of the 2021 accident.

The report noted that SOPs, while required for multi-crew helicopter operations, remain optional for single-pilot operators under the CARs, despite being particularly useful when a pilot lacks experience in a given scenario. It called reliance on an avoid-at-all-costs strategy unrealistic in regions like the Arctic, where flat-light and whiteout conditions can develop quickly.

The TSB also pointed to a gap between helicopter and fixed-wing requirements for reduced-visibility operations in uncontrolled airspace. Rotorcraft may be authorized to operate in visibility as low as half a statute mile below 1,000 feet agl—half the one-statute-mile minimum required of fixed-wing aircraft. Unlike airplane operators under the same authorization, they need not carry an artificial horizon, directional gyro, or GPS, nor complete annual IFR training.

Citing the Royal Canadian Air Force (RCAF), the report noted that one to two hours of annual instrument flight training, ideally supplemented with quarterly



Occurrence flight track, with inset magnification of accident location and projected track.

training, would give a VFR pilot a chance of surviving an IIMC encounter. From 1988 to 2022, the RCAF recorded 27 helicopter incidents attributed to loss of visual reference or

IIMC; in 19 of those, IIMC and instrument flight training, procedures, or instrumentation were credited with contributing to a successful recovery.



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Five Rivers Aviation Expands Footprint to Wyoming

Five Rivers Aviation, which operates the lone FBO at California's Livermore Municipal Airport (KLVK), has expanded to a second location after winning the RFP to become the sole service provider at Central Wyoming Regional Airport (KRIW) in Riverton.

According to CEO Pete Sandhu, the FBO had been without a dedicated operator for several years. It was run under the name Classic Air Medical by a local hospital, which was providing only basic aviation services.

After taking it over, Five Rivers expanded the FBO's offerings to include a full complement of ground handling services, including deicing. Plans call for the FBO's existing 8,650-sq-ft terminal to undergo renovation with a modern lobby, 15 individual offices, pilot lounge, full kitchen, and private showers. The complex at KRIW also includes a 10,000-sq-ft heated hangar that can accommodate light jets and turboprops.

Wisconsin FBO Chain Expands to Janesville

Wisconsin-based Spring City Aviation has expanded to four FBOs in the Badger State by acquiring the former Revv Aviation facility at Southern Wisconsin Regional Airport (KJVL) in Janesville.

The facility—the lone service provider at KJVL—offers a 2,725-sq-ft terminal with lounges, concierge, and an eight-seat conference room, as well as a 7,700-sq-ft hangar.

The location remains an Avfuel-branded dealer, offering the fuel provider's Avtrip customer loyalty program and access to its contract fuel plan.

Headquartered in Waukesha, Spring City Aviation is a comprehensive aviation company providing private charter, aircraft management, maintenance, sales, and ground handling services.

Sky X Marks the Spot at Hammond Northshore

Hammond Northshore Regional Airport (KHDC)—located on Lake Pontchartrain near New Orleans—is now served by three FBOs with the opening of its latest: Sky X. The newly built complex features a two-story, 10,000-sq-ft terminal with an airy lobby, passenger lounge with refreshment bar, 14-seat conference room, theater room, recreation room with pool table, and showers.

Its 30,000-sq-ft hangar can accommodate ultra-long-range jets, and a second development phase, slated to conclude by year-end, will triple that space.

The full-service facility also offers maintenance through its FAA Part 145 repair station, an AOG rapid response team, and Part 135 charter operations.

Airport Takes Over Operations at Chicago-area FBO

After a decade under Signature Aviation, the lone FBO at Chicago-area Waukegan National Airport (KUGN) changed hands Oct. 1. Signature told **AIN** that it had expressed interest in continuing to operate the FBO and making additional investments, but with the end of the chain's lease, the Waukegan Port District—which manages KUGN—assumed control of the facility and rebranded it as North Shore Jet Center.

The port district plans to invest in enhancements, including remodeling the existing 1970s-vintage two-story, 9,000-sq-ft FBO terminal—which has a passenger lounge with fireplace and refreshment bar, pilot lounge with snooze room, conference room, and flight planning area/business center—in the next year. It will also add U.S. customs assistance, ramp-side vehicle access, and enhanced features such as expanded concierge services. A new \$5 million terminal is planned for 2031 to support the continued growth of the airport.





Lebanon Airport FBO Is a Hidden Gem in the Granite State

In 2012, Jason Archambeault and Greg Soho bought Signal Aviation Services, the lone FBO at New Hampshire's Lebanon Municipal Airport (KLEB). Both worked for the company, Archambeault as director of maintenance and Soho as vice president.

"In 2011, the former owner announced that he wanted to sell the business," Archambeault told **AIN**. "Greg and I were already running the company at that time, and we knew it very well inside and out. We saw this as an opportunity to really expand our passions by being much more in the driver's seat as to the future direction of the business, so we put an offer together that the previous owner accepted, and the rest is history."

Renaming the facility to Granite Jet Center, the pair renovated the two-story, 7,200-sq-ft terminal, installing its namesake countertops throughout and replacing the furniture. The facility—with its exposed wooden beams adding a homey touch—has a landside porte cochere to protect customers from the weather, and the focal point in the lobby is a large, freestanding stone fireplace, which is actually wood-fueled.

"People really love it," Archambeault explained, adding it gives "that nice natural fire smell" when they come in from the ramp in cold weather.

The ground floor also holds a cozy passenger lounge with large windows overlooking the ramp and the mountains, as well as a pilot lounge with shower facilities and a business center.

Upstairs is a large, airy space with a decorative aircraft engine hanging from the ceiling. "Originally, when the building was designed, it was intended to be a restaurant space," said Archambeault. "It's been just a big open gathering space."

With its ample natural light, the space is also used for training events and



CURT EPSTEIN

Granite Jet Center is the lone service provider at New Hampshire's Lebanon Municipal Airport.

accommodates school groups on tours. It leads onto an outdoor viewing deck, with outside public stairs for plane spotting.

The second floor also holds a 10-seat conference room and a kitchen with windows providing views into the adjoining 15,000-sq-ft hangar that houses the company's Part 145 maintenance operation (piston aircraft only), in addition to storage of aircraft up to a Dassault Falcon 7X. In 2018, the company installed solar arrays on the entire hangar roof that provide nearly 90% of the FBO's electricity needs.

Granite leases another 15,000-sq-ft hangar on the other side of the field near the commercial terminal. The FBO has four based turbine aircraft: a pair of Embraer Phenom 300s, a Beechcraft Premier I, and a Daher TBM 850 turboprop single.

The company recently switched fuel providers to become a Titan-branded dealer. Its fuel farm holds 30,000 gallons of jet-A and 12,000 gallons of avgas, and is served by four new fuel trucks (two 5,000-gallon jet fuel tankers and two 1,000-gallon 100LL refuelers), all equipped with TCS meters that wirelessly transmit information to the CSR desk. They are operated by the company's

NATA Safety 1st-trained line staff, who fuel the commercial aircraft on the field as well.

The FBO also participates in IBAC's International Standard for Business Aircraft Handling (IS-BAH). "We believe strongly in this type of [safety] culture, and our Stage 2 IS-BAH certification speaks directly to our commitment to safety," explained Archambeault. "All of our employees take the full gamut of courses in the NATA course catalog because we believe the more they know, the more effectively they can perform for the customer."

Nearby Dartmouth College generates a lot of the FBO's traffic, according to Archambeault. "Dartmouth in general spins off a lot of industry in our area too, so that tends to be a big part of it," he said. "And then generally, there's just a lot of second homes in our area that people come to, a lot of summering in New England." But fall is the peak season at the facility, which is open from 6 a.m. until 10 p.m. every day. "It coincides well with a lot of things happening at Dartmouth. New students moving in, homecoming happens then, parents' weekends, that sort of thing, but really, the biggest draw is just the classic New England fall weather and scenery." C.E.



San Marino Approves DC Aviation for Bizjet Maintenance

The San Marino Civil Aviation Authority has issued CAR-145 maintenance approval to business aviation services group DC Aviation Al-Futtaim (DCAF) at Dubai Al Maktoum International Airport (OMDW). The certification, which followed a three-month application process, allows DCAF to provide line and base maintenance for San Marino-registered business aircraft, both privately and commercially operated.

According to managing director Holger Ostheimer, the approval expands options for independent maintenance support for aircraft managed by DCAF and also those operated by third parties.

Under the certification, DCAF is now authorized to provide base maintenance for a wide range of types, including legacy Bombardier Globals and Challenger 604/605/650s; Gulfstream G650s; Embraer Legacy 600/650s; and Airbus A320-series twinjets. Line maintenance will also be available on certain Boeing Business Jets, and Dassault Falcon 900EX/EASy, 7X, and 8X models.

The Europe-based DC Aviation group, which was originally part of the DaimlerChrysler corporate flight department, is mainly focused on aircraft management and charter, as well as maintenance, repair, and overhaul. With a headquarters in Stuttgart, Germany, it also has locations in Malta, Munich, Nice, San Marino, and Aruba.

Elliott Aviation Launches Five-day Pre-buy Evaluations

Aircraft brokers can now access pre-buy evaluations completed in as few as five days through Elliott Aviation, with the option to bundle avionics upgrades, paint, interior refurbishments, and cabin lighting work into the same service event.

The Moline, Illinois-based MRO said the program is designed to preserve deal momentum during aircraft transactions, where lengthy evaluation timelines can slow closings and introduce uncertainty. Elliott said the program coordinates maintenance technicians, scheduling, and communication to compress the evaluation window while providing brokers with clear findings throughout the process.

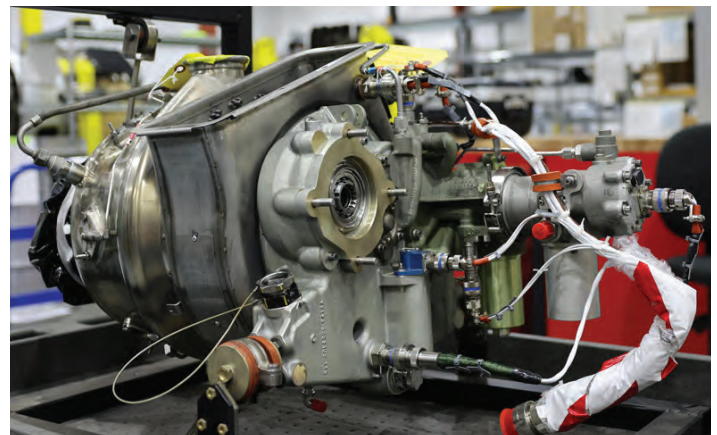
The program is available across applicable aircraft types at Elliott Aviation's nationwide facilities. Elliott specializes in Cessna Citation, Beechcraft King Air, Bombardier Challenger, Hawker, and Embraer Phenom aircraft.

Duncan Aviation Authorized for Honeywell APU Repairs

Duncan Aviation's facility in Lincoln, Nebraska, received heavy maintenance authorization from Honeywell Aerospace for the RE100 auxiliary power unit (APU) series. Under the authorization, Duncan Aviation can perform extensive overhauls and complex repairs on RE100LJ, RE100XL, and RE100CS APUs. The series is found on a range of business jets, from the Bombardier Learjet 45/75 to the Cessna Citation Excel/XLS, Sovereign, and Latitude.

The MRO company is integrating in-house RE100 APU overhaul capabilities into its Honeywell engine overhaul shop. Slated to be available in early 2027, the repair and overhaul work will be steered by Duncan Aviation engine program manager Shawn Schmitz. This integration eliminates the need to ship APUs to outside facilities, streamlining maintenance and reducing downtime.

Duncan is also investing in specialized tooling and infrastructure to accommodate the work, including an upcoming installation of a modular test cell.





Aero Detailing Academy: Setting the Standards for Bizav's Birds

Do we need a certificate program for aircraft appearance? At first blush, the answer might seem like mere cosmetics, but considering that a private aircraft is a high-value asset, aircraft detailing could be as important as maintenance in retaining not only its value but also its safe operations.

That is why founder and CEO Michaela “Miki” Thompson, along with her co-founders John Silver and Steven Chandler, created Aero Detailing Academy: to train professional aviation detailers and provide them with an internationally recognized certificate program that protects the fleet.

“Business aviation has developed world-class standards for nearly every technical discipline, yet aircraft appearance has never been supported by the same level of structured education or professional development, despite the complexity of the specialization,” Thompson told **AIN**. “We want to eliminate the risk for aircraft owners and operators.”

Historically, aircraft appearance services have been handled by a combination of flight departments, FBOs, independent specialists, or at MROs or their vendors, according to Thompson. She pointed to the specialized paint systems, acrylic windows, polished aluminum, composite materials, sensitive antennas, pitot tubes, and static ports, in addition to the numerous flight-critical components that require aviation-specific procedures and products.

Thompson noted the damage caused by the use of the wrong products or lack of training. For instance, improper procedures and products can lead to damage such as scratching acrylic windows or polished aluminum, staining interior materials, or prematurely wearing protective finishes. Using caustic products around sensitive components can create operational concerns.



A cohort of students learns proper approaches to aircraft detailing.

“Our goal is not to replace those providers,” she said. “It’s to help strengthen the profession by establishing consistent training and standards that benefit everyone involved... Unlike aircraft maintenance, there has never been a universally recognized educational pathway or certification standard specifically focused on aircraft appearance.”

Aviation requires a disciplined understanding of approved products, contamination control, documentation, and adherence to established procedures, Thompson continued. “Aviation moves globally. Owners cross borders and operators work across markets. Aircraft are sold, serviced, detailed, protected, and presented in different cities, countries, climates, and aviation environments. That’s why we need standards.”

Thompson and her partners—Silver co-founder and director of field operations and industry access, and Chandler, chief training officer and lead instructor—combine expertise in business development, operations, and aviation. In addition, they have partnered with Jetstream Aviation Products to deliver professional products from the beginning.

They are also working on opening a training center in Ghana, reflecting the global demographics of Thompson’s first class of seven students in Orlando and 10 in Las Vegas.

Thompson wants to see standardized and continuing education opportunities along with stronger employer partnerships and meaningful career pathways for individuals entering the industry. Certification is intended to complement experience, not replace it, she said.

“If someone wants to operate like a professional, they need to think like one from the very beginning,” Thompson said. “That means understanding risk, coverage, and why insurance is not just paperwork. Understanding that when you are working around aircraft, high-value assets, operators, owners, and businesses, professionalism must include protection.”

She reported growing interest from organizations recognizing the value of standardized training and workforce development.

“For us, success is measured not simply by enrollment, but by whether we’re helping build a stronger, more professional workforce that serves the aviation industry for years to come.”—Kathryn B. Creedy

BY DAVID JACK KENNY

The material on this page is based on reports by the official agencies of the countries having the responsibility for aircraft accident and incident investigations. It is not intended to judge or evaluate the ability of any person, living or dead, and is presented here for informational purposes.

Preliminary Reports

Occupants Escape Floatplane Fire

De Havilland DHC-3 Otter,
July 23, 2026, Eastsound, Washington

The pilot and all 10 passengers managed to evacuate the aircraft before fire consumed most of its fuselage after an attempted precautionary landing. Poor weather forced the scheduled flight from Kenmore Air Harbor Seaplane Base (W55) in Seattle to Roche Harbor (WA39) and Friday Harbor (W33), both in Washington, to reverse course and land in Shallow Bay off Sucia Island, where the pilot planned to wait for conditions to improve. Footage captured by a witness showed the floatplane descending in a nose-high attitude; about four feet above the water, the left wing dipped and the left wingtip and float struck the surface. After the right float came down, the craft crashed into rocks and ran aground.

The pilot and two passengers suffered serious injuries; the other eight passengers sustained minor injuries. Nearby boaters arrived within minutes to take them off the island as the aircraft caught fire. The NTSB's preliminary report did not include any summary of weather in the vicinity.

of the eight passengers and one of the two pilots suffered minor injuries when the twin-engine turboprop's right wing struck Runway 10 of Detour Lake Aerodrome (CDT9), collapsing the nose and right main landing gear and causing both propellers to strike the pavement before the aircraft slid across and off the runway.

The aircraft was on an IFR flight from North Bay, Ontario (CYYB) to CDT9 and had previously suffered a loss of cabin pressure that prompted an emergency descent from 16,000 to 8,900 feet and a diversion towards Timmins Airport (CYTS) before the pilots restored pressurization using manual control. They then resumed the flight to CDT9.

The first GPS approach to Runway 10 ended with the airplane not aligned with the runway, leading to a missed approach. The rate of descent on the second approach increased from 1,000 to 2,000 fpm, triggering a "sink rate" warning from the ground proximity warning system. The flight data recorder logged negative torque indicating reverse thrust on both engines twice in the last seconds of the flight, and at an altitude of 11 feet the airplane rolled 15 degrees right in a nose-down attitude, striking the runway. Prevailing weather included winds from 340 degrees, varying from 300 to 360, at 9 knots gusting to 19 under a 300-foot overcast.

a second company pilot at their base at Fort Chipewyan Airport (CYPY) phoned the 2,500-hour commercial pilot to advise of heavy snowfall approaching from the northwest. They agreed that he should return after finishing the current survey line, which he did at 14:38 local time.

Ground track data showed that early in the southwesterly 21-nm return flight, the helicopter began deviating right of course. After a brief further deviation eastward, it turned back towards the airport, and when it was within 2 nm, the pilot activated the runway lights but could not see them. Ground personnel estimated visibility at the time as ¼ mile in blowing snow. The second pilot could hear the helicopter but not see it. It had come within half a mile of the Runway 22 threshold when its pilot reported that he had lost all visual references and the helicopter was accumulating ice.

He made a 180-degree turn, then, at the suggestion of the second pilot, turned right towards Lake Athabasca in search of better visibility and ground reference. The last data point was recorded at 15:15, 3.3 nm east-southeast of the airport and showed the helicopter flying east-southeast at 27 knots and 839 feet. Two minutes later the pilot reported that he had released the external load but lost control of the aircraft, which was spinning. Impact occurred at 15:18.

Final Reports

Reverse Thrust Engaged During Unstabilized Approach

Fairchild SA227-DC Metro 23, Sept. 7, 2023,
Detour Lake Aerodrome, Ontario, Canada

Recorded flight data showed that during the scheduled commuter flight's second instrument approach to its destination, the engines were twice briefly put into beta mode, also known as reverse thrust. Three

Whiteout Precipitated Fatal Longline Crash

Bell 206L, Feb. 12, 2024,
Fort Chipewyan Airport, Alberta, Canada

Whiteout conditions caused the solo VFR-only pilot to suffer spatial disorientation, resulting in his fatal crash onto the frozen surface of Lake Athabasca as he tried to regain visual references. During the day's second flight conducting geosurvey operations using a sensor on a 300-foot longline,

Spatial Disorientation Preceded In-flight Break-up

Pilatus PC-12/47E,
July 26, 2024, Recluse, Wyoming

Flight track data and satellite imagery indicated that the airplane was likely in an area of precipitation inside cumulus clouds at 26,000 feet when the pilot lost control of the airplane after reporting "loss" of the autopilot. The single-engine turboprop then made a 270-degree turn at altitudes

varying from 25,250 to 27,025 feet before entering a steep descending right turn. The last radar contact showed a groundspeed of 256 knots as it descended through 21,900 feet; all seven occupants perished when it broke apart from overload at low altitude. Fragments of the left wing were found 0.82 miles from the main wreckage.

The NTSB concluded: “The airplane’s erratic flight track in the final 2 minutes... were consistent with the known effects of spatial disorientation.”

Night Charter Misidentified Heliport

Sikorsky S-76, Aug. 31, 2025,
Round Mountain, Texas

The pilots’ confusion over their position while approaching a rural heliport on a dark night led them to descend into trees more than a mile and a half from their destination. Both pilots and their only passenger suffered serious injuries, and the twin-engine turbine helicopter incurred “substantial damage to the fuselage, the main rotor system, the tail boom, the empennage, and the tail rotor system.” The accident site was “a heavily wooded area next to a recreational vehicle park...about 1.54 miles north of the heliport” on the opposite side of “a prominent east-to-west-running river.”

Due to prior anomalies with the autopilot, the captain chose not to file an IFR flight plan for the Part 135 charter from Dallas Love Field (KDAL) to Mirasol Hills Heliport (TA22), and while an instrument approach procedure was loaded into the flight management system, it was never activated. Both pilots monitored the flight’s progress via ForeFlight, and the first officer activated the heliport’s green ground lights by radio.

Both pilots “acknowledged observing green lights in their sight.” As the captain maneuvered for landing, he “lost outside visual references, and...transitioned to instruments.” At a radar altimeter of 20 feet, the terrain awareness and warning system alerted, but before the first officer could call

for a go-around, the helicopter struck trees.

Prevailing weather included 3-knot winds and 7 miles visibility with zero temperature-dewpoint spread. The operator suggested that “a night vision goggle program for non-airport operations” might have prevented the accident.

Fuel Exhaustion Left King Air Crew Out of Time, Altitude

Beechcraft King Air E90,
June 16, 2025, Gardner, Kansas

Fuel exhaustion led to a left engine flame-out during a go-around at New Century AirCenter Airport (KIXD), according to the NTSB’s final report. The flight instructor had not performed adequate fuel planning, and the report further noted that he had not adequately monitored the pilot receiving instruction, which led to inadequate airspeed in the pattern and the need for the go-around. Both pilots sustained minor injuries after the twin turboprop crashed into a hangar at the airport.

The aircraft had departed from Butler Memorial Airport (KBUM) in Missouri for KIXD for two purposes: a scheduled transponder test and additional King Air flight time for the pilot receiving instruction. Both pilots checked the cockpit fuel gauges during preflight and acknowledged the readings were within the yellow caution band on both wing tanks. The Beech E90 airplane flight manual prohibits takeoffs when fuel gauges indicate within the yellow caution band, defined as zero to 260 pounds of fuel. In a subsequent NTSB interview, the instructor claimed not to have been aware of the airplane’s minimum takeoff fuel requirements. Neither pilot visually inspected the fuel tanks during the preflight walkaround.

Before takeoff, the flight instructor intentionally disabled the auto-feather system, intending to conduct a single-engine demonstration during the flight.

In the traffic pattern at KIXD, the airplane was “a little high” on the downwind leg with

airspeed “a little fast,” the flight instructor told the NTSB. During the turn from base leg to final, the instructor said his attention had been diverted to a mobile phone to review the airport diagram and taxi route to the maintenance facility. When he looked up, the airplane was in what he described as a “steep dive” at approximately 85 knots, below the 110-knot target for that phase of flight. The instructor directed the pilot receiving instruction to increase engine power; after the throttles were advanced, the airplane yawed left. The instructor “suspected that the left engine flamed out due to fuel starvation” and took control of the aircraft.

The instructor retracted the gear and flaps, applied full right rudder, and rolled toward the operating right engine. The left propeller was not feathered, and the instructor believed it was still producing limited thrust. Despite the corrective inputs, the airplane continued turning left. ADS-B data confirmed that the airplane had dropped below V_{mc} during the base-to-final turn and continued to decelerate during the go-around. The instructor did not attempt to return to the runway, believing the airplane was accelerating and would clear a hangar ahead. The airplane hit the hangar and came to rest on the roof.

Based on the fuel recovered after the accident, the NTSB said there was likely insufficient fuel remaining to complete a go-around and re-enter the traffic pattern with one engine operating. “When drained, the left- and right-wing fuel tanks contained about three fluid ounces and about 30 fluid ounces of fuel, respectively.”

An FAA inspector confirmed that the left propeller showed blade damage consistent with a lack of engine power at impact, while the right propeller reflected an operating engine. The autofeather switch was not in the armed position. No flight manual or pilot operating handbook was found aboard the airplane; the only checklist in the cockpit was labeled “Simulator Use Only.”

—Amy Wilder contributed to this report

BY GORDON GILBERT

JUST AROUND THE CORNER

Oct. 26, 2026

U.S.: Expanding Spacecraft Launch/Recovery Airspace

The FAA is issuing a request for information (RFI) to solicit public and industry input on designating additional priority airspace for spacecraft launches and recoveries to augment Cape Canaveral, Kennedy Space Center, Vandenberg Air Force Base, and NASA's Wallops Flight Facility. Launch and recovery rates are expected to reach 10,000 per year by 2035, "driving the cadence from a few launches a week to several launches and reentries a day," the agency said. From an aviation perspective, comments are sought on advance notification of time, size, and duration of spacecraft launch and recovery sites based on safety and operational limitations. Comments on the RFI are due by Oct. 26, 2026.

Oct. 1, 2026

France: Passenger Information Requirements

France has introduced new advance passenger information and passenger name record (API/PNR) reporting requirements for business aircraft charter operations. These regulations apply to commercial flights arriving in or departing from any French territory, except those operated entirely within mainland France. International flight information specialist OpsGroup summed up the new requirements: strict enforcement starts on Oct. 1, 2026. "Getting it wrong could result in a fine (up to €50,000)." Passenger data must be sent twice: once 48 hours before departure, and again at the time of departure, "using the final and accurate passenger manifest." The API/PNR mandate does not replace customs or immigration requirements. There is no regulatory change for private flights.

Oct. 9, 2026

U.S.: Military Pilot Training at Civilian Flight Schools

The FAA has proposed regulations to expand the existing exception for U.S. Air Force pilots from the requirement to hold an FAA third-class medical certificate to pilot trainees of all service branches who already meet U.S. military pilot medical requirements. Currently, eligibility for non-USAF military pilots requires special

exemption approvals. The FAA has determined that U.S. military pilot medical exams meet or exceed the level of safety established for third-class medical certificate standards. Therefore, it is redundant to require military pilot trainees to meet both standards. The proposed rule would support streamlining and expanding the U.S. military use of civilian flight schools and reduce the volume of third-class medical certificate applications requiring FAA consideration. Comments on the proposal are due by Oct. 9, 2026.

Oct. 29, 2026

U.S.: Trump Tower Prohibited Area

Prohibited Area P-75 will replace the temporary flight restriction (TFR) over Trump Tower, New York, that has been in effect for years. The new requirement, effective October 29, means that the 1-nm circle (with a flattened side along the East River) will be off-limits at all times to aircraft without U.S. Secret Service permission. P-75 has a 1,000-foot agl ceiling and will be charted instead of just being included in the FAA's long list of TFRs, "allowing better situational awareness for pilots."

Oct. 30, 2026

U.S.: G20 Foreign Ministers' Meeting

Special ATC procedures, flight restrictions, and some FBO special event fees are likely

to be in effect for general and business aircraft operations during the G20 Foreign Ministers' Meeting in Atlanta, Georgia, Oct. 30-31, 2026. The meeting brings together representatives of 20 member economies that together represent about 85% of global GDP and two-thirds of the world's population. The FAA told **AIN** that as the event draws closer, operators should be on the alert for pertinent advisories in the form of notams, temporary restricted areas, and other operational requirements.

Jan. 1, 2027

Singapore: SAF Fee

The Civil Aviation Authority of Singapore (CAAS) will introduce a sustainable aviation fuel (SAF) levy for all private, business, and commercial aircraft departing the country starting Jan. 1, 2027. "This isn't a fuel mandate in the traditional sense," according to international flight services organization OpsGroup. "Operators are not required to physically uplift SAF. Instead, the government will buy SAF centrally and recover the cost through the levy applied to every flight." The fee varies based on the distance traveled into four geographical bands. For flights with multiple stops, the cost is based on the immediate next destination after departing Singapore. The airlines will add the levy to passenger ticket prices. But, in addition to distance, the fee for GA flights will also be based on

the aircraft size as measured by wingspan. Under this formula, levies would range from as little as S\$40 for a small turbine airplane flying a relatively short distance to S\$6,500 for an ultra-large business jet on a long flight.

Feb. 28, 2027

U.S.: Digital Departure Clearances

An ongoing operational evaluation of a mobile clearance tool for general and business aviation is scheduled to end early in 2027, with a final product to start being deployed in February at some 300 airports across the country. This digital tool allows pilots to request and receive IFR departure clearances using ForeFlight or Garmin Pilot electronic flight bag apps. Some of the facilities receiving mobile clearance will include FAA Tracons. Mobile clearance will also work at non-tower airports, although IFR releases won't initially be available without a tower to manage that process. Pilots will also be able to cancel IFR flight plans once on the ground.

April 1, 2027

UK: Air Passenger Duty Tax

The UK government will expand its higher rate of the commercial air passenger duty tax to business jets with mtow of 5.7 tonnes and heavier (12,566 pounds or heavier) starting April 1, 2027. Currently, only a small number of private jets pay the higher rate because the length of their trips does not meet the criteria for the higher rate, and as such, they pay the same rates as airline passengers. "Extending the scope of the higher rate ensures the tax is applied consistently and that those who can afford to fly privately make a fair contribution alongside commercial air passengers," said the government's budget policy document. In the first year, the government expects to acquire some £720 million (more than \$960 million) from the business jet tax. ■

For the most current compliance status, see: ainonline.com/compliance



DUNCAN
AVIATION

A PASSION FOR AVIATION. THE HEART OF A FAMILY.

Since 1956, Duncan Aviation has grown from a single hangar into a global family of experts supporting business jet operators worldwide. Through every service and solution, our promise remains the same: care deeply, work boldly, and treat everyone like one of our own.

At NBAA-BACE, we invite you to become part of our story. Visit Duncan Aviation at Booth #2333 and add your creativity to a community art project—a collaborative work celebrating the people, passion, and family spirit behind seven decades of excellence, connection, and care. Completed pieces will also be on display.

Make your mark at Booth #2333. Visit DuncanAviation.aero/70 to learn more.

BY JESSICA REED

JetAviva's CFO, **Kathy Oberbroeckling**, is serving as interim CEO of the company. Oberbroeckling has worked at JetAviva since 2016 and has overseen its M&A activities, as well as its internal business matters.



DAVID CUMMINS

The *Transportation Security Administration* has sworn in **David Cummins** as the eighth administrator. Cummins steps into a role that had been filled on an acting basis since January 2025, when the previous administrator, David Pekoske, departed the agency.

He brings more than two decades of government contracting experience to his new role. Most recently, Cummins was senior v-p of Serco's Citizen Services group.

The FAA selected **Caitlin Locke** for the position of associate administrator for aviation safety. Locke previously held the role of executive director of the Aircraft Certification Service and has been at the FAA for almost 18 years.

ACI Jet has promoted **Aaron Colt** to FBO safety manager, a newly created position overseeing safety practices across the company's fixed-base operations network. Colt started on the ramp, a background that ACI Jet said informs his view of how safety policy plays out across FBOs of different tiers. He previously served as aircraft ground support supervisor at the group's John Wayne Airport facility in Orange County, California.

The *International Business Aviation Council* (IBAC) announced a new chair and vice chair of its Standards Board, along with several new members. **Benjamin Hammond**, Pentastar Aviation's v-p of FBO services, is now chair of the IBAC Standards Board, with **Jennifer Van Winkle**—marketing and quality manager for Sundt Air—serving as vice chair. Other members for the 2026 to



BENJAMIN HAMMOND

2027 board include former chair **Lou Sorrentino** (AvMASSi), **Kevin Donnelly** (Jet Aviation), **Paul Kraft** (Tastefully Yours/DaVinci Training), **Jose Rubinho** (United Aviation Services), **Phil Bartle** (Signature Aviation), **Rick Hooper** (VistaJet), **Troy Hyberger** (Duncan Aviation), **Whitney**

Schultz (Modern Aviation), and **Dawit Lemma** (Krimson Aviation).

Kelly Lurz joined *Premier Private Jets* as chief operating officer for the company's maintenance business (mainly in Dayton, Ohio), plus its FBOs in Dayton, Cincinnati, and the Detroit area. Lurz formerly served as COO for PrivateFlite Aviation, an aircraft management and charter firm, as well as for Aircraft Specialists, an FBO and maintenance organization.

Rick Estes, who had served as CTO of PWI since 2016, was named president and CEO of the company. Estes brings expertise in engineering and managing manufacturing operations. He takes over following the retirement of **Robi Lorik**, who had been president and CEO since 2019 and had worked for the company for almost five decades. Lorik, who remains on the board of directors, recently directed significant improvements to the company's accounting and sales/inventory software. **Eric Dahlinger**, marketing manager, was also promoted to v-p of corporate communications.

Elliott Jets hired **Brady Nelson** and **Jonathan Stoy**, who joined its sales organization. Nelson previously served as international sales director at CAE/Pelesys and has worked in aviation for almost 30 years. Stoy, a seasoned aerospace executive, most recently worked at Hartzell Propeller as v-p of sales and marketing.

Pro Star Aviation promoted **John Hill** to director of special missions. Hill has worked for Pro Star since 2005 and brings 40-plus years of expertise in avionics, engineering, aircraft modification, and more.

Janet Megdadi joined *PlaneSense* as senior v-p of sales and marketing. Megdadi's more than three decades of experience include enterprise sales, strategic partnerships, and revenue growth, and she has held leadership positions at Visa, Bolt, and Salesforce.

C&L Aerospace hired **Nicholas Bock** for the role of regional sales manager for business jet aircraft parts, covering the Southeastern U.S. region.



RICK ESTES



JANET MEGDADI

Most recently, Bock worked at Empire Aviation as a regional business development manager. He served on active duty for six years in the U.S. Coast Guard, and he is experienced with Citation, Hawker, Challenger, Learjet, and Beechjet aircraft.



LAURENT SAISSI

Laurent Saissi joined *Boutsen Aviation* as director of international sales and strategy. Saissi brings 25-plus years of experience in aviation, including working for Airbus in avionics engineering and for

Dassault Aviation in support of Falcon owners and operators.

Northern Jet added **Ken Price** to its team as charter sales broker. Price's 37-plus years of experience in the aviation industry include navigating aircraft availability, operator relationships, and the broader charter market.

Matt Pruett of *Cutter Aviation* has moved into the role of general manager for the company's FBO at Georgetown Executive Airport in Texas. Pruett started working at Cutter in 2021 as a client relationship manager and was promoted in 2023 to general manager of the company's FBO in Prescott, Arizona. Additionally, Cutter Aviation line manager **Daniel Klucsarits** was promoted to general manager of the company's Prescott FBO.



KYLE VICTOR

Kyle Victor joined *West Star Aviation*'s Chicago location as satellite manager. Victor brings 15-plus years of aviation maintenance experience, most recently working at Priester Aviation for 10 years. West Star also

appointed **Jason Taylor** chief information officer. Previously CIO and global CTO at RS Americas, Taylor has also served as v-p of global digital and innovation at Gates Corporation.

Integrity Jets hired **Breno Correa** from Embraer as managing partner. Correa's most recent role at Embraer, where he worked for 20 years, was senior v-p of asset management.

Bismarck Aero Center announced two new hires. **Alex Gross**, who completed an aircraft mechanic internship at Bismarck in 2025 and has his A&P license, joined the company as an A&P maintenance technician. **Seth Fix** was also hired as an avionics technician; he studied mechanical

engineering at the University of North Dakota and previously served in the North Dakota National Guard.

Western Aircraft announced the promotion of **Chris Chavez** to senior modifications sales manager. Chavez began his career as an avionics technician in the U.S. Marine Corps, where he served for five years, and he joined the Western Aircraft team in 2021. ■



CHRIS CHAVEZ

FINAL FLIGHT

Gary Garofalo, an aviation attorney whose more-than-five-decade career helped shape U.S. Federal Aviation Regulations (FARs) governing business aircraft operations, died on August 22. "Gary was the consummate attorney with an outsized passion for aviation," said NBAA president and CEO Ed Bolen. "His fingerprints are all over the [FARs] and the legal opinions that guide our industry."

A longtime NBAA Tax Committee member, Garofalo served as chair for two years and later led the association's Operational Excellence Strategic Focus Team, coordinating its Tax, Domestic Operations, and International Operators Committees.

He studied aeronautical engineering at Rensselaer Polytechnic Institute, earned a University of Virginia law degree in 1965, and joined the FAA's legal staff, spending three years on licensing requirements, enforcement cases, airworthiness directives, and FAR interpretation. In 1972, he co-founded the Washington, D.C., firm known today as GGH Air Law, representing business aircraft owners and operators, FBOs, airlines, and more until his 2021 retirement.

Garofalo was also involved in the FAA's Fractional Ownership Aviation Rulemaking Committee (ARC), whose recommendations produced Part 91 Subpart K, and served on the steering committee for the Part 125/135 ARC.



AWARDS AND HONORS

Andrew Toy, president of *Axiom Aviation*, received the FAA's Wright Brothers Master Pilot Award. Toy has been a pilot for 53 years, and the award recognizes him for his safe flying as well as his commitment to professionalism and continuous learning.

2026 Statement of Ownership, Management & Circulation
as required by the U.S. Postal Service

Aviation International News Magazine (ISSN 0887-9877)

Filing Date: September 1, 2026

Aviation International News is a monthly magazine, 12 issues per year.
\$99.99 per year when sold.

Complete Mailing Address of Known Office of Publication:
Aviation International News, 214 Franklin Ave., Midland Park, NJ
07432-1842. Contact Person: Eileen Silberfeld. Telephone: (201)
345-0085. Complete Mailing Address of Headquarters or General
Business Office of Publisher: Aviation International News, 214
Franklin Ave., Midland Park, NJ 07432-1842. President: Ruben
Kempeneer, 214 Franklin Ave., Midland Park, NJ 07432-1842.
Managing Editor: Charles Alcock, 214 Franklin Ave., Midland
Park, NJ 07432-1842. Owner: AIN Media Group Inc. and Wilson
S. Leach, 214 Franklin Ave., Midland Park, NJ 07432-1842. There
are no Bondholders, Mortgagees, and Other Security Holders. Tax
Status Has Not Changed During Preceding 12 months.

14. Issue Date for Circulation Data Below-August 2026	Average Copies Per Issue	Actual Copies Nearest Filing Date
Total Copies: Net Press Run	25,347	25,240
15 b 1 - Outside County Paid/Requested Mailed Subscriptions	14,172	14,069
15 b 2 - In County Paid/Requested Mailed Subscriptions	-	-
15 b 3 - Sales through Dealers, Carriers, and other Paid/Requested Distribution Outside USPS	4,680	4,491
15 b 4 - Paid/Requested Copies by Other Mail Classes via USPS		
15 c Total Paid/Requested Distribution	18,852	18,560
15 d 1 - Outside County Non-Requested Mailed Subscriptions	6,239	6,577
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15 d 3 - Non-Requested Copies by Other Mail Class via USPS		
15 d 4 - Non-Requested Copies Distributed Outside USPS - trade shows	172	20
15 e Total Non-Requested Distribution	6,411	6,597
15 f - Total Distribution	25,263	25,157
15 g - Copies not distributed/office copies	84	83
15 h - Total Distributed /Not Distributed Copies	25,348	25,240
15 i - Percent Paid/Requested	75%	74%
16 a - Paid/Requested electronic copies	8,863	8,845
16 b - Total Paid/Requested Print & Electronic Copies	27,715	27,405
16 c - Total Requested Print Distribution & Requested Electronic Distribution	33,954	33,982
16 d - % Paid/Requested Print & Electronic Copies	82%	81%

Certified correct and complete September 1, 2026 by
Eileen Silberfeld, Audience Development Director



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NEWS REPORTERS – Charlotte Bailey – Europe, Amy Wilder

CONTRIBUTORS – Julie Boatman, David Donald – U.K., Jennifer Leach English,
Gordon Gilbert, David Hughes, David Jack Kenny – Safety, Stuart “Kipp” Lau, Robert P. Mark,
Jennifer Meszaros – Southeast Asia, Richard Pedicini, Dale Smith, James Wynbrandt

PRODUCTION MANAGER – Martha Jercinovich

GRAPHIC DESIGNER – Grzegorz Rzekos

DIRECTOR OF VIDEO – Ian Whelan

SENIOR DEVELOPER – Cameron MacPherson

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U.S. HEADQUARTERS

214 Franklin Ave., Midland Park, NJ 07432, +1 (201) 444-5075

Advertising Inquiries: +1 (201) 345-0085, sales@ainonline.com

Circulation Inquiries: +1 (201) 345-0085, subscriptions@ainonline.com

WASHINGTON, D.C. EDITORIAL OFFICE:

Kerry Lynch: klynch@ainonline.com, Tel: +1 (703) 969-9195

EUROPEAN EDITORIAL OFFICE:

Charles Alcock: calcock@ainonline.com, Tel: +44 7799 907595

Aviation International News (ISSN 0887-9877) is published twelve times per year (monthly). Periodicals postage paid at Midland Park, N.J., and additional mailing offices. Postmaster: Send address changes to AIN Media Group, 214 Franklin Ave., Midland Park, NJ 07432.

Allow at least eight weeks for processing. Include old address as well as new, and an address label from a recent issue if possible.

Subscription inquiries: +1 (201) 345-0085 or email: subscriptions@ainonline.com.

Aviation International News is a publication of AIN Media Group, 214 Franklin Ave., Midland Park, NJ 07432; Tel.: +1 (201) 444-5075.

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News, NBAA Convention News, Paris Airshow News, Singapore Airshow News, Mobile Apps: Aviation International News; AINonline.

PUBLICATION MAIL AGREEMENT NO. 40649046 RETURN UNDELIVERABLE CANADIAN ADDRESSES TO:

PITNEY BOWES INTERNATIONAL MAIL, STATION A, P.O. BOX 54, WINDSOR, ON, N9A 6J5, returns il@imex.pb.com.



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