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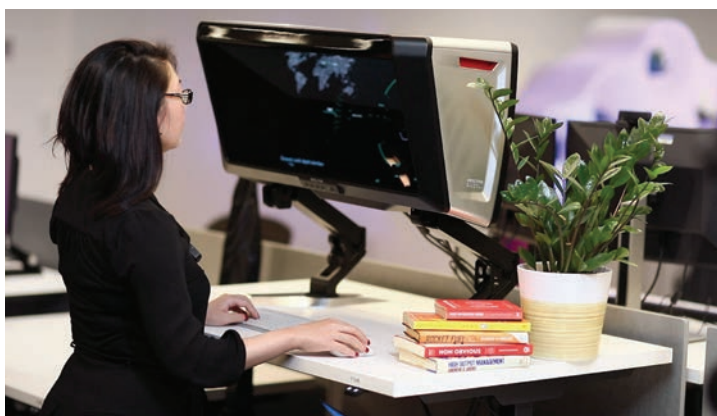
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On the cover: G650 flying over Al Khobar, Corniche Boulevard in Saudi Arabia



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Based on the G280, the Gulfstream G300 has larger cabin windows and Honeywell Epic 2-based touchscreen avionics.

Gulfstream finally takes the wraps off super-midsize G300

BY CHAD TRAUTVETTER

Marking its sixth new aircraft model in 10 years, Gulfstream Aerospace launched the G300, a \$28.9 million derivative of the super-midsize G280, on September 30 during a customer event at its Savannah, Georgia headquarters. Notably, the long-rumored model has 10 panoramic cabin windows, a 2-foot cabin stretch, and Honeywell Epic 2-based “Harmony” avionics.

During the event, Gulfstream president Mark Burns revealed a full-scale mockup of the G300 and showed photos of the first aircraft in production in Tel Aviv, where IAI manufactures Gulfstream’s super-mid-size jets under license. Following the unveiling, the mockup was transported to Las Vegas for display at NBAA-BACE.

“Fueled by a decade of investment and our future-forward approach, the Gulfstream next-generation fleet offers our customers the most innovative family of aircraft,” Burns said. “We know how important the super-midsize cabin segment is to our customers, so building on the highly successful G280 program, the G300 will reenergize the category with its heightened technology and safety enhancements, alongside the legendary comfort and styling of a Gulfstream.”

Nearly 22,000 hours of ground testing on the G300 have been conducted at Gulfstream’s lab facilities, including an integration test facility with iron bird

capability. Nearly 2,000 ground test hours have been logged on the first aircraft, which is “being prepared for first flight,” a company spokeswoman told *AIN*. IAI has begun manufacturing two additional test aircraft. Gulfstream has not provided an estimate for service entry, but industry sources point to first-half 2028 for start of deliveries.

Besides structural changes to accommodate the larger cabin windows and fuselage, the avionics switch from the G280’s Collins Pro Line Fusion to a Honeywell system likely denotes the biggest certification hurdle. The Harmony flight deck has six touchscreen displays, synthetic vision, and a predictive landing performance system. A pilot-side HUD is available as an option.

The G300 tips the scales at 39,750 pounds mtow, 150 pounds more than its predecessor. Its 3,820-pound payload is also about 200 pounds less. However, G300 performance is unchanged from the G280: 3,600-nm and 3,000-nm range at Mach 0.80 and Mach 0.84, respectively; 45,000-foot ceiling; and 4,800-foot cabin altitude at FL410. Its two-zone cabin can seat up to 10 passengers.

Also unchanged between the two super-midsize-jet models are the aircraft’s two 7,624-pound-thrust Honeywell HTF7250G engines, conventional hydraulic control system with a yoke, 63-foot wingspan, and Mach 0.85 Mmo. ■

News Briefs

BOMBARDIER TO OPEN SERVICE CENTER IN FORT WAYNE

Bombardier’s next major aircraft service center expansion will be in the U.S. Midwest with a 64,500-sq-ft facility planned for Fort Wayne International Airport (KFWA) in Indiana. Anticipated to open in the second half of 2026, the center is the latest of a string of service center expansions the business jet manufacturer has undertaken over the past decade. To result in the creation of 100 jobs over the next few years, the facility will be equipped to support the full lineup of Bombardier business jets.

EBAA, GAMA OPPOSE NEW EURO AVIATION FUEL TAX

EBAA and GAMA are jointly opposing new European Commission plans to start taxing jet-A used by aircraft with fewer than 19 seats for both commercial and non-commercial flights. According to EBAA, the tax would amount to €0.40 (\$0.46) per liter of jet-A, which equates to around \$1.74 per U.S. gallon. It would also tax sustainable aviation fuel (SAF) used by business aircraft at a rate of €0.18 per liter, “running counter to the EU objective of making SAF more affordable,” EBAA said. The proposal is expected to be voted on during a meeting on November 13.

EMBRAER Q3 DELIVERIES REMAIN STABLE

Aircraft deliveries at Embraer remained stable in the third quarter, with the Brazilian airframer reporting a total of 62 units. While the 41 business jet deliveries in the quarter were unchanged from a year ago, the group achieved a small uptick in regional airliner shipments. Third-quarter deliveries by Embraer’s executive aviation division included three Phenom 100EXs, 20 Phenom 300Es, 11 Praetor 500s, and seven Praetor 600s. Over the first nine months, the company has delivered 102 business jets; it expects to hand over 145 to 155 Phenom light jets and midsize Praetors by year-end.

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News Briefs

MILLION AIR LAUNCHES AIRCRAFT BROKERAGE

FBO chain Million Air has launched a business aircraft brokerage division, leveraging the company's leaders who have decades of experience in the preowned aircraft market. Dubbed Million Air Craft Sales & Acquisitions, the new offering is being led by Tyler Bowron, who was recently a partner at Hatt & Associates and previously headed up the sales and acquisitions unit at NetJets brokerage subsidiary QS Partners. The division will be dedicated to the aircraft ownership arena, helping clients navigate aspects of buying and selling.

DASSAULT INAUGURATES CERGY FALCON/RAFALE FACTORY

Dassault Aviation has inaugurated a new production facility northwest of Paris in Cergy, which over the past 12 months has been assigned multiple manufacturing tasks for both the Rafale fighter and Falcon business jets that were formerly conducted at the French group's nearby Argenteuil facility. More than 600 technical staff, including many who transferred from the outdated site, are now working on aircraft skin panels, forward fuselage assemblies, fuselage outfitting, and metal hose and small parts production. The Cergy factory took three years to build and covers more than 27 acres with a production space of more than 427,000 sq ft.

GEORGE J. PRIESTER CLOSES ON FIRST OF TWO ACQUISITIONS

George J. Priester (GJP) Aviation has completed the acquisition of aircraft management and charter provider Omni Air Transport in Tulsa, Oklahoma, expanding its presence in the U.S. South-Central region. This was one of two deals announced in August, with a second agreement signed for the planned purchase of Sunrise Jets of Westhampton, New York, which would broaden GJP's reach in the Northeast. Both deals will add more than a dozen aircraft to GJP's managed fleet.



The updated, fly-by-wire SJ36 model will feature larger engines and SyberVision avionics.

SyberJet revives light-jet line with stretched SJ36

BY MATT THURBER

Trevor Milton purchased the SyberJet program two years ago and now plans to stretch the design of the six-passenger SJ30-2 light business jet and add larger engines, updated avionics, and fly-by-wire flight controls to develop the new \$14 million SJ36. First flight of the SJ36 is projected in 2027, with FAA certification in 2032.

While the cabin's width and height remain very similar to the SJ30-2's, the four-foot stretch will enable seating for nine occupants. The SJ36's Mmo is projected to be Mach 0.88, with a long-range cruise of Mach 0.74. Maximum altitude is the same as the SJ30-2's—at FL490—as is the 12-psi cabin pressure differential, providing a sea-level cabin at FL410.

Only five SJ30-2s were built, with the final one purchased by actor Morgan Freeman. None are flying now, according to Milton, and SyberJet owns the airframes except for one non-flying SJ30-2 owned by an individual.

Milton soon plans to announce the selection for the SJ36's engines, which will produce about 7,000 pounds of thrust combined. SyberJet will use one of the SJ30-2s as a flying testbed for the larger engines and for the SJ36's avionics suite.

Unlike other jet manufacturers, SyberJet is designing the avionics for the SJ36, which will be an entirely new system but using the SyberVision brand name that SyberJet devised for its planned revamp of the SJ30-2, which never took flight. SyberVision will feature six touchscreen displays, a flight management system, autopilot, autothrottles, and secure over-the-air updates for databases and avionics upgrades.

The SJ36's flight controls will be fly-by-wire, using the trim-stable design similar to Boeing and Gulfstream fly-by-wire configurations. SyberJet will work with fly-by-wire system manufacturers for flight control system components. ■



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Flexjet orders 300 Otto Phantom 3500 light jets

BY KERRY LYNCH

Otto Aerospace formally launched its Phantom 3500 light business jet at the UP.Summit in Bentonville, Arkansas, on September 29 with a firm, deposit-backed fleet order from Flexjet for 300 airplanes.

Unveiled in June, the Phantom 3500 is a clean-sheet twinjet that will fly at altitudes up to 51,000 feet, have a 3,500-nm range, and sport a cabin height of 6 feet 5 inches. It will also incorporate laminar-flow aerodynamics and all-carbon-fiber composites to cut fuel burn by more than 60% over current technology aircraft and lower emissions by 90% when using sustainable aviation fuel.

Plans call for first flight of the Phantom 3500 in 2027, with FAA Part 23 certification and deliveries following in 2030. The agreement also names Flexjet as an authorized service center for the twinjet. The companies did not detail the value of the deal, but based on the estimated \$19.5 million initial pricing of the Phantom 3500, it could approach \$6 billion.

Flexjet chairman Kenn Ricci said the Phantom 3500 marks “a bold step into a future where an aircraft’s efficiency and sustainability stand alongside speed, comfort, and range as defining standards.”

The Phantom 3500 will be integrated into Flexjet’s fleet to offer clients a more sustainable, long-range travel option, Flexjet said. Customers will have access to Flexjet’s private terminals and other premium offerings.

“Flexjet’s decision to build their fleet around the Phantom 3500 speaks volumes about where aviation is headed,” said Paul Touw, CEO of Otto Aerospace, the Fort Worth, Texas-based company that was recently renamed from Otto Aviation. “As one of the largest business jet orders in private aviation history, this marks a turning point in the industry’s move toward sustainable and efficient air travel.”

Otto unveiled a full-scale mockup of the Phantom 3500 during the UP.Summit event, showcasing 72-inch “passenger windows” that incorporate its SuperNatural Vision (SNV) technology. The SNV technology uses lightweight digital screens that depict imagery from cameras embedded around the airframe.

“Business jets have long relied on derivative designs built from traditional aluminum structures, aerodynamics, and manufacturing techniques from decades past,” Touw said. “Freed from legacy systems and guided by a true clean-sheet, ultra-efficient vision for the future, we rethink everything to unlock performance gains once thought impossible.”

Otto is planning a 1 million-sq-ft factory for the aircraft on 250 acres at Cecil Airport in Jacksonville, Florida. Backed by a \$515 million incentive package from the state of Florida, the plant will be designed as a smart factory with robotics, automation, and deterministic assembly to achieve the precision required for laminar flow. ■

News Briefs

TEXTRON AVIATION ROLLS OUT FIRST PRODUCTION ASCEND

Textron Aviation in mid-September rolled out the first production model of its Cessna Citation Ascend. Launched at EBACE 2023, the midsize Ascend made its first flight in June last year and will eventually replace the XLS+ in the airframer’s product lineup. It is expected to receive FAA certification by year-end. With standard seating for up to nine, the Ascend takes many of its design features from its Citation Latitude and Longitude siblings, with a flat floor for extra passenger leg room and Garmin G5000 avionics with autothrottles.

CAN COMPLETES 70,000TH CANCER PATIENT FLIGHT

Corporate Angel Network recently completed its 70,000th patient flight. Michael Newton, a colon cancer patient, was transported from Minnesota to New York for treatment at Memorial Sloan Kettering. Hanson Communications donated its Bombardier Learjet 40XR for the flight, with Bruce Hanson and his son Dominick serving as pilots. CAN partners Signature Aviation, Million Air, and Drivania Chauffeurs supported the mission. The nonprofit has been providing free transportation for cancer patients aboard business aircraft since its founding in 1981. CAN v-p of development Courtney Easton said more than 200,000 cancer patients annually require long-distance travel for specialized treatment.

MAR-A-LAGO PROPOSES NEW 60-FOOT HELIPAD UPGRADE

President Donald Trump’s Mar-a-Lago Club has submitted plans for a new helipad, four years after the original pad was demolished at the close of his first presidency. The proposed design calls for a 60-foot-diameter concrete pad on the estate’s west lawn, 10 feet wider than the previous structure. Harvey Oyer, the project’s attorney, said the larger size is required to accommodate the Marine Corps’ VH-92A Patriot helicopters.

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Global bizjet accident fatalities jump this year

BY GORDON GILBERT

Fatalities from turbine business airplane accidents worldwide increased nearly 24% in the first nine months versus the same period in 2024, according to preliminary data gathered by AIN. Twenty-five accidents involving business jets and turboprops accounted for 99 lives lost so far this year, compared

with 23 accidents resulting in 75 deaths through the third quarter of last year.

U.S.-registered business jets represented the only segment among all turbine-powered business airplanes to record fewer accident fatalities in the first nine months of this year versus

continues on page 33 ►

ACCIDENTS/INCIDENTS WORLDWIDE (FIRST 9 MONTHS 2025 VS FIRST 9 MONTHS 2024)

U.S.-registered Business Jets and Turboprops

Business jets	Total		Part 91		Part 91K		Part 135		Public/Gov't		Mfg	
	2025	2024	2025	2024	2025	2024	2025	2024	2025	2024	2025	2024
Total accidents	16	14	11	12	0	0	5	2	0	0	0	0
Nonfatal accidents	13	10	8	9	0	0	5	1	0	0	0	0
Fatal accidents	3	4	3	3	0	0	0	1	0	0	0	0
Fatalities	8	11	8	9	0	0	0	2	0	0	0	0
Incidents	65	58	47	35	0	0	17	23	1	0	0	0

Business turboprops	Total		Part 91		Part 91K		Part 135		Public/Gov't		Mfg	
	2025	2024	2025	2024	2025	2024	2025	2024	2025	2024	2025	2024
Total accidents	32	20	24	16	0	0	7	4	1	0	0	0
Nonfatal accidents	25	14	19	10	0	0	6	4	0	0	0	0
Fatal accidents	7	6	5	6	0	0	1	0	1	0	0	0
Fatalities	23	15	15	15	0	0	4	0	4	0	0	0
Incidents	42	36	31	24	0	0	9	11	2	1	0	0

Non-U.S.-registered Business Jets and Turboprops

Business jets	Total		Private		Charter		Other*		Unknown	
	2025	2024	2025	2024	2025	2024	2025	2024	2025	2024
Total accidents	9	5	3	4	1	1	3	0	2	0
Nonfatal accidents	3	3	1	3	0	0	0	0	2	0
Fatal accidents	6	2	2	1	1	1	3	0	0	0
Fatalities	21	4	6	2	6	2	9	0	0	0
Incidents	9	9	3	3	3	4	2	1	1	1

Business turboprops	Total		Private		Charter		Other*		Unknown	
	2025	2024	2025	2024	2025	2024	2025	2024	2025	2024
Total accidents	23	35	7	11	10	15	5	8	1	1
Nonfatal accidents	14	24	6	4	6	13	2	6	0	1
Fatal accidents	9	11	1	7	4	2	3	2	1	0
Fatalities	47	45	2	31	33	11	10	3	2	0
Incidents	15	11	7	0	5	7	2	2	1	2

All Data Preliminary. * For example: air ambulance, aerial survey, ferry, training, testing, manufacturer, government (non-military). Sources: FAA, NTSB, Aviation Safety Network, AIN research

AIN tables show "incidents" as well as "accidents" to distinguish mishaps based on their degree of severity. Investigators often draw fine distinctions between the two events, but, typically, incidents result in minor or no damage and their investigations are sometimes delegated to local officials. Accidents are events that range from minor damage to destruction and/or injuries. Also, some incidents ultimately get upgraded to accident status during the investigative process.

News Briefs

FLEXJET LAUNCHES ULTRA-PERFORMANCE G700 SERVICE

Fractional-share operator Flexjet added three Gulfstream G700s to its fleet, and it is operating the 7,750-nm twinjets under its Red Label program, with higher levels of comfort and service and dedicated flight crew for each aircraft. By the end of the year, Flexjet expects its fleet to exceed 340 jets, including more than 60 large-cabin G450s, G650s, and G700s, all fitted with Starlink low-earth-orbit satcom systems. The jets' interiors feature Flexjet's LXI Cabin Collection.

COURT RULES IN FAVOR OF CHARTER OPERATORS AT KHPN

A federal appeals court has reversed a previous federal judge's ruling that forced per-seat business jet charter operators to use the airport terminal and TSA checkpoints, rather than the FBOs at Westchester County Airport (KHPN) in White Plains, New York. In 2021, the airport said per-seat charter operators must use the terminal, prompting JSX Air and XO Global to file a lawsuit seeking to continue to use FBOs. A July 2024 court ruling sided with the county. However, an appeals court ruled in late August that the county "has not offered a single policy, procedure, or other written document indicating that public charters were required to use the terminal."

TRU VERIS VR SIMULATOR GAINS FAA QUALIFICATION

TRU Simulation's Veris virtual reality full-motion flight simulator has received FAA level-7 flight training device qualification. The Bell Training Academy in Hurst, Texas, is the launch customer for the Veris simulator, which replicates the Bell 505 helicopter. With a six-degrees-of-freedom motion base, the Veris simulator hosts the flight data and RealFeel digital electronic control loading system that TRU uses in its level-D simulators, producing "accurate flight cues and vibrations," TRU said.



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Global sustainability report: Some progress but steep climb ahead



Aircraft departing from European Union airports must use a minimum 2% blended sustainable aviation fuel.

European mandates provide progress nudge

BY CHARLOTTE BAILEY

As the worldwide aviation industry looks to accelerate its adoption of decarbonization strategies, Europe continues to leverage its experience and appetite for sustainable advancement.

These pair continent-wide regulatory requirements, such as European Union sustainable aviation fuel (SAF) mandates, with regional refining abilities, aiming to strengthen the SAF supply chain. However, further legislative clarity is needed to incentivize the timely construction of new fuel production facilities, while additional punitive taxes are hindering European competitiveness.

“Business aviation manufacturers, and the wider industry, remain fully committed to our sustainability goal of achieving net zero carbon emissions by 2050,” said

Kyle Martin, v-p of European affairs at the General Aviation Manufacturers Association (GAMA). This commitment remains despite a change of U.S. administration that may favor other priorities.

At the same time, Martin has not observed any change in European motivation to achieve its sustainability targets, even as the overarching goal broadens. “The new European Commission, which took office in late 2024, started with a very noticeable shift in focus towards competitiveness and innovation rather than a purely sustainability-driven agenda,” he explained. “We welcome this changed direction, as we can be both sustainable



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Neste's illustration of the ReFuelEU mandate, which requires, beginning Jan. 1, 2025, that aircraft departing from European airports use a minimum of 2% blended SAF, rising to 6% in 2030 and 70% by 2050, with aircraft required to uplift at least 90% of their total fuel within the EU.

and competitive.”

However, an open letter from Airports Council International (ACI) Europe to European Commission President Ursula von der Leyen in February 2025 took a cautionary tone. Written on behalf of the “Destination 2050” industry alliance, it warned that “further EU public support” was needed to meet 2050’s target and called for a SAF industrial policy, supportive financing, and a simplification of regulatory burden.

REGULATORY LANDSCAPE

Notably, 2025 is the year the EU’s ReFuelEU Aviation Regulation (first drafted in 2021 and formally adopted in 2023) has taken effect in Europe. From January 1, this minimum supply mandate has required aircraft departing from EU airports to use a minimum 2% blended SAF. This percentage will increase to 6% in 2030 and 70% by 2050, with aircraft required to uplift at least 90% of their total fuel from within the EU.

While ACI Europe’s director of sustainability, Alexandre de Joybert, believes these mandates “provide essential legal certainty,

“Europe must adopt a clear SAF industrial policy...”

—Alexandre de Joybert
ACI Europe’s director of sustainability

financial incentives, and flexibility, mechanisms to scale production at competitive prices are lacking.”

With the European Parliament due to issue a Sustainable Transport Investment Plan in the third quarter of 2025, the EU must complement this plan’s objectives with stronger policy support, said de Joybert. Such measures should include risk-sharing tools, innovation funding, revenue-certainty mechanisms, flexible supply and claims systems, and financing tailored to SAF needs. Beyond immediate financial support, he reiterated that “Europe must adopt a clear SAF industrial policy.”

However, further regulatory review is also vital to fostering European decarbonization efforts, argued GAMA’s Martin. “Some policy measures are actually making it harder for industry to meet its

sustainability goals,” he noted, citing the sharp increase in France’s so-called “solidarity tax” imposed in March 2025. This aggressive and punitive policy, he continued, “significantly added to the cost burden for commercial business aviation flights departing from French airports, yet offers no reductions or incentives for SAF use.”

This penalizing approach appears at odds with EASA figures explaining that within the EU, “every 10% increase in air connectivity yields 0.5% in GDP per capita along with 1.6% in employment.”

The UK has also turned up the fiscal dial on private aviation with its air passenger duty in 2025, with none of the anticipated £520 million (\$700 million) expected income in the first year set to be allocated to sustainability incentives.

SAF PRODUCTION

The ReFuelEU Aviation mandate successfully boosted bio-SAF production in Europe from almost zero to around 1.2 million tonnes in 2024, something de Joybert said sends “a positive and necessary signal to the market.” However, despite

progression, the burgeoning European SAF industry continues to be dogged by a demand that far outpaces supply.

This is by no means a problem unique to Europe. However, while the U.S. Inflation Reduction Act provided some tax incentives to help scale up SAF production, European approaches differ. “In contrast, Europe’s current approach relies predominantly on mandates like ReFuelEU Aviation and limited ETS [Emissions Trading Scheme] allowances, which provide regulatory certainty but fall short of addressing the high upfront investment risks and cost challenges faced by SAF producers,” said GAMA’s Martin.

De Joybert concurred, believing that while European policies and mandates “provide positive momentum, more coordinated financial support and national backing are needed to ensure access to reliable, affordable SAF across the continent.” Crucially, although “mandates set the direction, only a mix of regulatory and robust financial incentives can mobilize private capital to scale up SAF production rapidly and cost-effectively,” he concluded.

Although ACI Europe recognized earlier this year that the EU does face disadvantages regarding SAF production—including the “cost of electricity [and] natural gas”—it does also possess “considerable refining infrastructure and the associated workforce.”

Of the 11 approved production pathways (set by the international industry standard-setting organization ASTM), current production is almost exclusively dominated by the hydroprocessed esters and fatty acids (HEFA) pathway. Although existing refineries can be more readily adapted to its production, HEFA’s requisite raw materials (including used cooking oil, vegetable oil, or animal fats) face significant scalability challenges.

Used cooking oil is the most prevalent European feedstock, with around 80% of Europe’s imported from China, Indonesia, and Malaysia. Geopolitical uncertainty,



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combined with concern about the sustainability of supply chains, therefore has the potential to impact the European aviation sector's resilience.

NEXT-GENERATION FUELS

So-called "next-generation" SAF pathways aim to mitigate these concerns, with Europe already exploring the development of alternative synthetically produced liquid hydrocarbons. These are also known as power-to-liquid (PtL) or e-fuels. Carbon feedstocks (including from direct air capture) are synthesised with green hydrogen, with the resulting product also able to be blended with conventional kerosene.

Recognizing PtL's potential, a ReFuelEU submandate for these fuels will start at 0.7% in 2030 and increase to 35% in 2050. The UK is a notable exception to the trend of HEFA dominance in 2030, "largely due to the HEFA cap within the UK SAF mandate, which sets a limit of 71% of SAF permitted to be HEFA by 2030 and 35% by 2040," noted a recent ACI Europe report. De Joybert described the UK's direction as "a balanced policy" and an approach that "mitigates risks associated with feedstock scarcity and geopolitical dependencies."

Although de Joybert acknowledged that "Europe benefits from a robust pipeline of over 40 large e-SAF projects, representing more than half of the global capacity, none have yet reached the crucial final investment decision."

High start-up costs, along with the relative nascency of green hydrogen production and direct air capture methods, are impacting the speed at which European PtL plants can evolve beyond a pilot stage.

"Challenges like high investment risks... and strong competition from markets with better incentives hinder scale-up, particularly for next-generation SAF technologies struggling to reach final investment decisions," he continued.

EASA estimates that of the almost 70 EU and European Free Trade Association (EFTA) facilities projected to be up and running by 2030, only five are likely to be operating. A further eight are "realistic," with the remainder deemed "optimistic."

Despite the UK's Jet Zero Strategy (published in 2022) pledging a "commitment to have at least five [SAF] plants under construction by 2025," only one project has commenced construction. Netherlands-headquartered SAF supplier SkyNRG flagged up a similar reality in its 2025 market outlook. With mandated European SAF demand expected to reach approximately 4 million tonnes by 2030, only 30% of the plants needed to meet a feasible annual production of around 3.8 tonnes are operational or under construction.

Regardless of its method of production, the availability of SAF is nevertheless steadily increasing across European FBOs. Aviation sustainability advocate 4AIR said that as of May 2025, SAF is available at 114 locations worldwide, 43 of which are in Europe.

Signature Aviation, operator of the world's largest network of private aviation terminals, also claims it has "become the first FBO worldwide to offer permanent supplies of SAF and is aggressively expanding availability."

With projected demand rising, in 2024, the European Business Aviation Association highlighted Paris Le Bourget, London Luton, and London Farnborough as representing the three biggest European FBO demands for SAF. Indeed, in March 2025, a new supplier deal saw Farnborough gain what the airport called "the potential to be the only airport in the world to be offering fuel with a 20% [SAF] blend across its entire supply by 2028."

WHAT'S NEXT?

With SAF as an intrinsic decarbonization strategy, GAMA is continuing to advocate

for additional European initiatives to support its ramp-up, including the recognition of a book-and-claim SAF system. (Under this structure, the environmental attributes of SAF can be claimed by a company that does not receive the physical product.)

Notably, the ReFuelEU mandate was initiated without any recognition of book-and-claim. Furthermore, the EU's Emission Trading Scheme (EU ETS) for carbon pricing also doesn't accept this decoupled scheme for SAF credits.

However, GAMA has recognized a "notable shift in the EU's attitude towards recognizing a book-and-claim system for SAF over the past six months," something bolstered by the EU's public call for tender for a book-and-claim system in October 2025.

This, explained the EU, would identify the "viable options for the legally sound set up" of mechanisms that could subsequently be extended worldwide. An upcoming study will prioritize analysis of areas of the world "that have the largest trade volumes with the EU, such as the U.S., North Africa, and Singapore."

GAMA, together with other aviation stakeholders, "are continuing to push for the recognition of a book-and-claim system under both EU ETS and RefuelEU Aviation as an essential measure to accelerate investment and growth in Europe's SAF market," concluded Martin.

In 2026, the European Commission is also set to assess ICAO's Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

At this point, the arguably more ambitious EU ETS could potentially expand its scope to flights departing Europe. "Alternatively, the proposal could be to maintain the intra-European scope if CORSIA is strengthened and has a high level of global participation and implementation," clarified the EU.

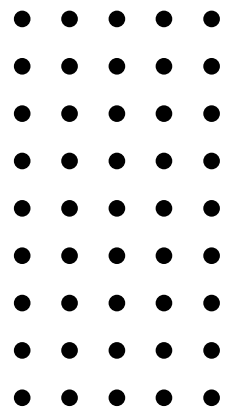
FUTURE OF AVIATION **CONNECTED BEYOND BOUNDARIES**



Connectivity is shaping the future of aviation. It is a future where aircraft, air traffic control, pilots and passengers are constantly connected to enhance safety, improve operational performance and create breakthrough experiences.

Honeywell

FULFILLING THE PROMISE OF CONNECTED AVIATION



Aviation connectivity has come a long way since 1912, when Britain's Royal Flying Corps installed a telegraph system on a pre-World War I biplane, allowing pilots and ground crews to communicate. Onboard radios were next, and they became the primary means of air-to-ground and air-to-air communications for 75 years until satellite communications (satcom) systems entered the picture.

Satcom revolutionized connectivity by enabling continuous communication beyond visual line-of-sight (BVLOS). Satcom really took off in the 1990s thanks to new satellite constellations, regulatory changes and innovations in hardware and software.

High-speed broadband satcom arrived in the mid-2010s, ushering in a new age of connectivity that emphasized speed, expanded coverage and consistency.

CONNECTIVITY TODAY: FAST, AVAILABLE AND CONSISTENT

Breakthrough innovations in avionics, sensors, microprocessors and satcom have created a new generation of highly connected, intelligent aircraft capable of real-time data exchange and autonomous decision-making.

Today's aircraft are considerably more advanced than the global air traffic management (ATM) ecosystem in which they must operate. The ATM system has limited capacity to manage the volume, complexity and diversity of modern aircraft.

If anything, the challenges facing ATM will become more severe in the years ahead as passenger and cargo traffic grows¹ and next-generation advanced air mobility (AAM) aircraft come into play.



CONNECTIVITY WILL DRIVE THE AIR TRAFFIC MANAGEMENT OVERHAUL

The recent spate of well-publicized aviation accidents, close calls and ATM system outages underscores problems inherent in an infrastructure that relies primarily on manual processes and 1970s technology. At the same time, staffing problems in air traffic control (ATC) towers and operation centers may directly impact the safety, efficiency and capacity of the national airspace system.

The Trump Administration has called for an ambitious and long-overdue overhaul of the United States ATC system, which will cost billions of dollars, require congressional approval and take many years to complete.² Meanwhile, the Single European Sky ATM Research (SESAR) initiative aims to create the “world’s most efficient and environmentally friendly” ATM system in Europe by 2045.³

Connectivity will play a crucial role in ATM transformation by driving the shift from analog, voice-based and manual processes to a digitalized, data-driven ecosystem based on real-time communication, precise tracking, dynamic routing and integrated airspace management.

Key benefits of these ATM upgrades will support:

- ✓ *Improved scheduling and on-time performance, which will come from real-time data sharing and trajectory-based operations to minimize disruptions and congestion.*
- ✓ *Digital communications and surveillance systems to enable greater airspace capacity and tighter aircraft spacing without compromising safety.*
- ✓ *Predictive maintenance and fleet health monitoring of aircraft systems to reduce unscheduled maintenance and aircraft downtime.*
- ✓ *Improved reliability since modern digital systems are less prone to outages and failures than legacy radar and radio technologies.*

The future of aviation connectivity will undoubtedly include a transformative leap forward into a new era of digitalization, ultra-connected communications and data-centric systems.

Connectivity will drive significant improvements in flight safety, operational efficiency and airspace performance by enabling real-time data exchange, predictive analytics and seamless coordination between aircraft, air traffic control and ground operations.

ABOUT THIS HONEYWELL WHITEPAPER

This whitepaper provides an overview of aviation connectivity and explores how breakthrough solutions are shaping the future of aviation by enabling seamless communication, coordination and decision-making across the broad airspace ecosystem.

It provides an overview of how innovations in satellite communications, real-time data sharing and digital automation are transforming the ways aircraft interact with air traffic control, operations centers and each other to unlock new levels of efficiency, safety and scalability.

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Honeywell’s spirit of innovation is alive today in locations around the world where dedicated teams of Futureshapers are working on game-changing innovations and programs that will make aviation safer, more efficient, more sustainable and more accessible.

To read more about our connectivity solutions or to engage with Honeywell connectivity experts, visit us online at aerospace.honeywell.com.



AVIATION'S CONNECTED FUTURE: SEAMLESS, RESILIENT AND CONSISTENT

Connectivity is at an inflection point once again. New satellite constellations on the horizon will transform the way aircraft connect, communicate and operate within the global ecosystem. Satellite operators like SpaceX, Telesat, Iridium NEXT, OneWeb and Amazon Kuiper plan to launch as many as 70,000 low Earth orbit (LEO) satellites between 2025 and 2031, with thousands dedicated solely to meeting aviation's expanding connectivity needs.⁴

These vast LEO constellations will complement new and existing medium Earth orbit (MEO), highly elliptical orbit (HEO) and geostationary Earth orbit (GEO) satellite networks. LEO satellites orbit much closer to Earth than HEO or GEO satellites, so they deliver high-speed connectivity.

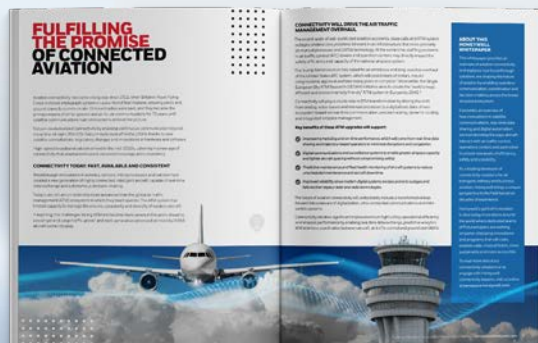


“Aviation connectivity involves so much more than a pilot talking to an air traffic controller or a passenger live streaming video in the cabin. Connectivity enables the seamless exchange of vast amounts of real-time data to aid decision-making, improve safety, enhance operations and create a better experience for flight



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SAF: Fourth leg of the stool is slowly progressing

BY CURT EPSTEIN



Production of sustainable aviation fuel is growing, but still has a long journey ahead.

With aviation groups setting goals of net-zero carbon emissions, the strategy behind that is often referred to as the four-legged stool, with each leg representing one of the required strategies necessary to achieve those ambitions. Among them are airframe and engine efficiency improvements, air traffic control upgrades, and market-based measures such as carbon offset purchases. But, it is the fourth leg, sustainable aviation fuel (SAF), that is both the best near-term solution as well as the one that could make the largest contribution in terms of carbon reduction.

With jet fuel having a 75-year head start, many have been frustrated at the seemingly slow pace of growth in SAF availability and its use, with global production still

representing less than one percent of the total jet fuel usage.

“I think it hides the progress we’ve seen because four years ago, we were at .001 percent,” said Kennedy Ricci, president of industry sustainability solutions provider 4Air. “We basically had a handful of millions of gallons of SAF available four or five years ago; now we have hundreds of millions of gallons of production and more continuing to come online.” With global jet fuel demand currently at 90 billion gallons a year, even one percent is a significant amount, he added.

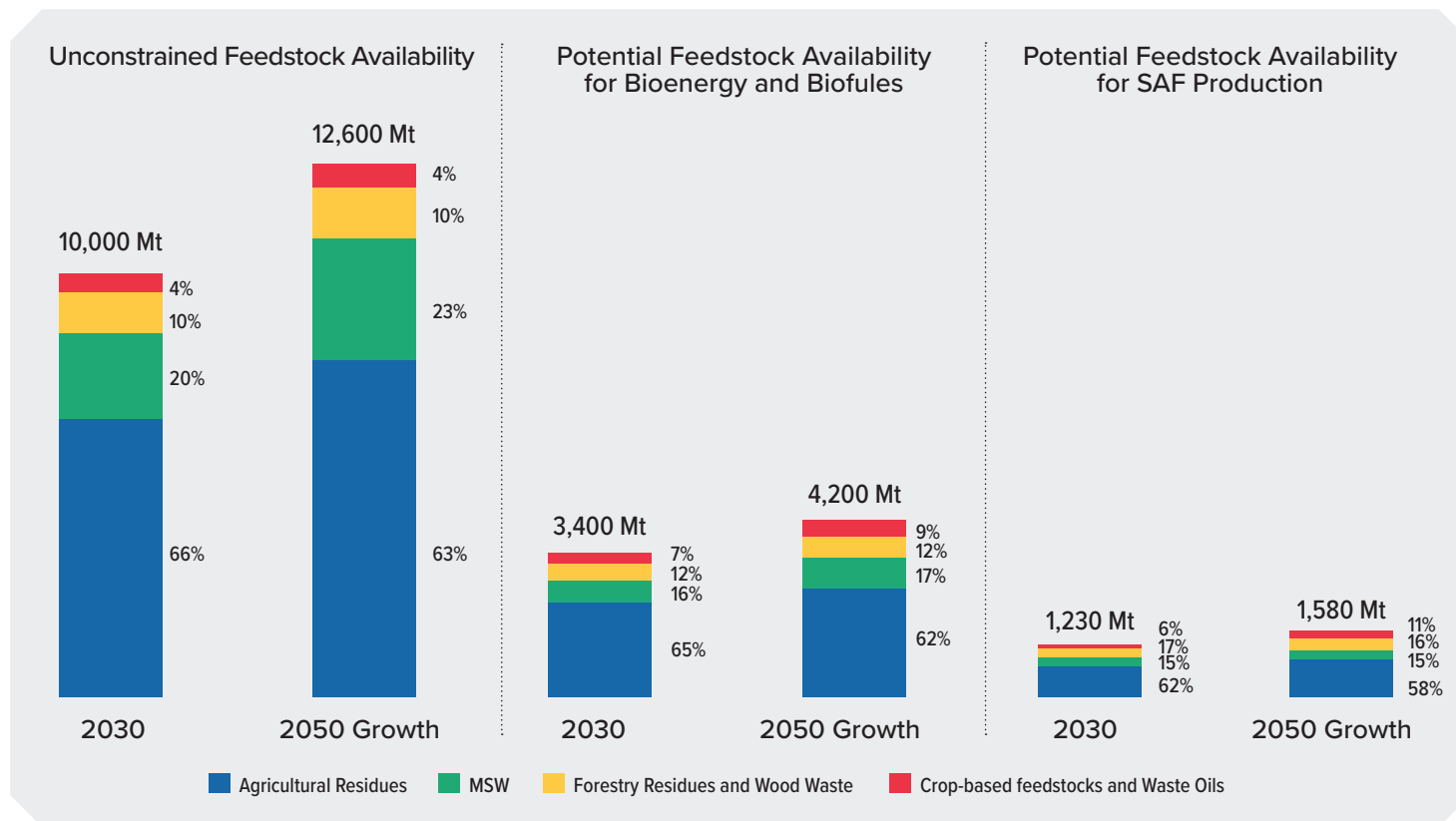
The SAF that is pumped into fuel tanks at airports is a blend of neat SAF and conventional jet-A at a ratio that is currently approved at up to 50 percent. In its

blended form, it is a drop-in replacement for fossil-based jet fuel and is fully miscible, meaning it does not require separate storage from regular jet fuel.

In terms of unblended SAF, the supply in the U.S. is forecast to nearly double from last year, according to the Commercial Aviation Alternative Fuel Initiative (CAAIFI), moving from 110 million gallons to more than 200 million this year, as refineries such as Montana Renewables continue to ramp up production.

The International Air Transport Association (IATA) noted that more than 140 renewable fuel projects with the capacity to produce SAF are expected to be operational by 2030. If they reach their expected output rates, worldwide renewable fuel

Potential availability of global biomass feedstocks for SAF production in 2030 and 2050



Source: Worley Consulting, IATA Sustainability & Economics, 2025

capacity could reach nearly 40 billion gallons by that date, and possibly more.

The organization recently issued a report in partnership with Worley Consulting, concluding that technology implementation, not SAF feedstock availability, is the main pinch point in the ability of the aviation industry to reach net-zero carbon emissions goals by 2050.

According to the study, hurdles remain in current technology—mainly the slow rollout of production processes besides hydroprocessed esters and fatty acids (HEFA), which involves used cooking oils and other fats to produce SAF.

The report notes that the bulk of the SAF required by 2050 will be derived from two main sources: sustainably-sourced biomass or power-to-liquid pathways that have been slow to enter commercial production. In all cases, the report stated, it

will be necessary to improve the efficiency of the production processes, accelerate technology implementation, improve feedstock logistics, and invest in the infrastructure required to scale up production.

“We now have unequivocal evidence that if SAF production is prioritized, then feedstock availability is not a barrier in the industry’s path to decarbonization,” said IATA director general Willie Walsh. “The potential to turn SAF feedstocks into real SAF production is in the hands of policymakers and business leaders, particularly in the energy sector. We have just 25 years to turn this proven potential into reality.”

Yet not all those projects will come to fruition. In September, following an in-depth commercial and technical evaluation to reassess the project’s competitiveness, Shell subsidiary Shell Nederland Raffinaderij announced it would not restart

construction of its planned biofuels facility at the Shell Energy and Chemicals Park in Rotterdam, which began in 2022. The facility, which had experienced technical difficulties in its construction, was slated to be one of the largest biofuel refineries in Europe, producing more than 800,000 tonnes of biofuels a year.

“As we evaluated market dynamics and the cost of completion, it became clear that the project would be insufficiently competitive to meet our customers’ need for affordable, low-carbon products,” said Machteld de Haan, Shell’s president for downstream, renewables, and energy solutions. “This was a difficult decision, but the right one, as we prioritize our capital towards those projects that deliver both the needs of our customers and value for our shareholders.”

“I think for a little while there was this idea of sustainability at any price, and that

was just never feasible,” said Ricci. “There was no one who was willing to pay an infinite amount for the price of a gallon [of SAF], so whatever we do here has to be technically and economically competitive with options that we have in the market.”

He noted that co-processing, which uses existing refinery infrastructure to comeingle crude oil and bio-crude, is being utilized by many of the European biofuel producers. “That’s just a more economical way to do it, because you don’t have to pay all the capital expenditures of either converting the plant into a biorefinery or upgrading it,” Ricci told **AIN**. “It gives the refinery a little more flexibility in reality.”

As for Shell, de Haan noted, “We continue to believe that low-carbon molecules, including biofuels, will underpin the future energy system.”

Another investment factor stems from policymakers, particularly in the U.S., who are not issuing strong support and incentives to encourage the development of SAF on a federal level, leading individual states to adopt their own.

“I think the pivot to many more states offering and planning incentive programs will continue to spur the demand and the production platforms that are planned for the U.S. and Canada,” said Keith Sawyer, Avfuel’s manager of alternative fuels, pointing to the lucrative Chicago market, which receives SAF via pipeline. “In time, we think we will see customers in that region, and there are quite a few of them starting to generate interest, given the state incentives that are in process.”

SAF FLOW IMPROVES

Over the past year, advances were made in the availability of SAF for business aviation users in the U.S. While it had previously been limited to the West Coast due to the proximity of the refineries (the transport of SAF before it reaches the end consumer can degrade its lifecycle carbon emissions benefits), fuel distributors such as Avfuel established new marine transport depots

in Florida and New Jersey, allowing East Coast FBOs to receive and maintain permanent supplies of SAF for the first time.

“We’ve had strong [SAF] demand from the Port Everglades supply point, and it is picking up in the Northeast,” Sawyer said. “We continue to be optimistic, [overall] demand seems to be stable, although perhaps slower growth than in previous years.”

On its website, 4Air tracks the global availability of SAF in an interactive map on its website. By the end of October, the company had listed nearly 100 locations.

Yet through the book-and-claim process, SAF is much more widely available. Customers can purchase it and receive the environmental benefits, while the actual fuel is dispensed into another aircraft at an affiliated location that carries SAF.

Yet despite the existence of many SAF registries, the industry is still lacking a definitive regulatory framework to tie all

of this together, according to Ricci. “We still don’t have clear guidance yet from the GHCP [Greenhouse Gas Protocol] or any of the carbon accounting standards of how we appropriately would record claims from book-and-claim, so that’s holding back some of the book-and-claim side,” he said. “I think it’s really great that we’ve got the ability for people to access SAF at pretty much most of the major business aviation airports across the U.S., but price continues to be kind of a hurdle, and policy or accounting guidance is another.”

As recently illustrated at the annual JetNet iQ summit, part of the quarterly survey sent out to worldwide business aviation operators dealt with their views on SAF usage. When asked if they will seriously consider flying with SAF in the next 24 months, while a third of the respondents indicated positive interest, nearly half disagreed. ■



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Washington brings mixed bag on sustainability

BY KERRY LYNCH



Advocates for sustainability are encouraged by a focus on innovation in the U.S. and elsewhere.

The 2024 U.S. elections have markedly changed the political environment in Washington this year, seemingly shifting focus away from sustainability onto other priorities. However, even as green initiatives have muted in the Washington dialog, progress is continuing as the conversation has turned more toward innovation and as rural and manufacturing states—along with their lawmakers—have stepped up their support.

“Every new administration brings a changing landscape, and stakeholders adjust accordingly,” said Kristie Greco Johnson, senior v-p of government affairs

for NBAA. “But I think when it comes to sustainability and aviation, there’s still quite a bit of energy and progress at play. We have a strong message with policymakers that these are policies that are good for American commerce, American business, American energy independence, and national security. Those messages still resonate with leadership.”

Karen Huggard, v-p of government affairs for the National Air Transportation Association (NATA), agreed, saying progress made this year in sustainability shows that for aviation, “it’s a little bit different and in some ways in a class of its

own. When we think about the new technologies that we’re looking toward in the future in terms of electrification, hydrogen, and alternative energy sources, that’s all about global leadership, it’s all about research and development, it’s about the next generation of aircraft, and it’s about innovation.”

MIXED RESULTS IN WASHINGTON

However, questions swirled about the future of Washington’s support for sustainability following the elections. And, immediately after taking office, President Donald Trump issued a series of executive



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orders revoking federal sustainability goals and electric vehicle mandates, halting some funding, and calling for the withdrawal from the Paris Agreement, among other steps. More recently, an executive order was released ending wind and solar subsidies.

But, in June, the administration released another executive order establishing an Electric Vertical Takeoff and Landing (eVTOL) Integration Pilot Program and calling for the expansion of beyond visual line of sight operations and applications. Further, the administration early on approved a sustainable aviation fuel (SAF) refinery loan in Montana. And work involving SAF continues at the Departments of Agriculture, Energy, and Transportation, each with its own niche.

Action on Capitol Hill has similarly been mixed. On one hand, the One Big Beautiful Bill budget reconciliation act that passed in July phased out clean vehicle and energy efficiency credits adopted under the Inflation Reduction Act of 2022. It also did not renew a \$1.25 per-gallon blenders SAF tax credit—this had already expired, so it wasn't necessarily "killed" like some other measures.

However, the bill retained a broader biofuel production tax credit, which includes SAF, but at a lower \$1 per gallon rate. And it retained hydrogen production tax credits, but sunsets them in 2027 rather than 2033.

"There are a number of provisions that eliminated sustainability policies put in place by the previous administration, but a key one that endured was the biofuel tax credit. And while the value of that tax credit was decreased, I think its existence is a result of strength and support from farm-state Republicans," Greco Johnson said. "There's quite a bit of economic benefit to those farm-state communities—the production of sustainable aviation fuel, producing the feedstocks,

refining the products, distributing the products. There's a lot of bipartisan support around that."



KAREN HUGGARD
NATA V-P OF GOVERNMENT AFFAIRS

The reduction in the SAF tax credits, Huggard said, may be a recognition that any tax credit is being weighed against a strong push to cut the budget. "A tax credit works in the wrong way. So, the fact that the biofuel tax credit was extended is a recognition of those other positive attributes for the American economy. The fact that enhanced [SAF-only] credit ultimately didn't remain, I think, is just a reality of them having to be mindful of what their goal was in terms of that spending bill."



KRISTIE GRECO JOHNSON
SENIOR V-P GOVERNMENT AFFAIRS, NBAA

Importantly, support for SAF, electric, and other sustainable measures remains firmly in place on Capitol Hill. Both the House and Senate have created Sustainable Aviation Caucuses, supported by lawmakers not only from farm states that see the benefits to agricultural economies, but also those in traditional petroleum states such

as Louisiana, where they see opportunity for expanding existing assets and infrastructure for SAF.

While green energy has been pushed under Democrat policies, "Republicans are recognizing that sustainable aviation fuel is a great market for American production in agricultural states. So, we're seeing a shift toward SAF on the economic benefits to domestic fuel production, the economic benefits to the farmers who will grow feedstock for this fuel," Huggard said, adding, "There's also recognition that energy security from domestic sources is valuable."

Greco Johnson further pointed out that SAF "really fits nicely within the administration's policy goals on domestic energy production and energy independence, which contributes to national security."

EYES ON APPROPRIATIONS

Looking forward, aviation advocates have turned their attention to the appropriations process, where funding for critical research such as the CLEEN (Continuous Lower Energy, Emissions, and Noise) program is vulnerable to funding cuts. CLEEN is a public-private cost-sharing research program to forward sustainable technologies. Further, they are eyeing funding for the aviation sustainability center of excellence—referred to as ASCENT, which is focused on NextGen environmental technologies research. Funding for these programs was shaved down and/or redirected under the 2025 continuing resolution bill, but Congress seems interested in returning levels to those of Fiscal Year 2024.

Support also continues for the U.S. SAF Grand Challenge. However, earlier this year, the administration signaled a change in the name from "sustainable aviation fuel" to "synthetic aviation fuel," perhaps a reflection of the drive toward innovation rather than a sustainability priority. On top of the terminology change, there hasn't been much visibility on the challenge,

raising some concern that it has taken a back seat.

THE STATES STEP IN

While Washington refocuses, the states have stepped up as another key piece of advancing sustainable initiatives. This is particularly true in rural states that rely on agriculture, but also in states such as Florida and Kansas that are laying the groundwork for electric aviation. Many have adopted or are contemplating tax and other incentives to pave the way.

“The states that had already leaned into biofuels over the last 10 and 15 years understand what those kinds of fuels can do for the economy,” Huggard said. Other states have joined in, such as those in the Southeast eager to establish biofuel production facilities, or those where manufacturing is central and are looking for innovation. To them, this means jobs.

“We have a good story to tell in aviation. It’s hard not to get behind it because it makes sense and rises above the political fray a little bit,” Huggard said.

While Europe looks to mandates, the U.S is more aimed on incentives, but that could shift. “I don’t see us moving to a stick approach from the federal perspective on sustainability the way that it’s happening in Europe. [But,] many of our aviation companies are global, and so they have to navigate these.” That’s a topic of a panel at the upcoming NATA Aviation Business Conference.

However, at the state level, it is not all about incentives, and while there is support among the states, that doesn’t quell the industry critics. “We’ve seen climate demonstrations at Southern California airports against business aviation. We’ve seen several bills that could have been really damaging to business aviation introduced in the California legislature,” Huggard said. “We see movements to shut down business aviation airports in the Northeast, and then increasingly we see anti-aviation sentiment in some middle states like Colorado, so it

can be very difficult for business aviation here in the U.S.”

Ultimately, she said, advocates need to take a multi-pronged approach of looking at the administration, its various agencies, Congress, as well as the states. But it is also on industry, the association experts agreed.

“For aviation—from the manufacturing and the operator’s perspective, we’ve always been trying to fly faster, safer, lighter, with less fuel, so the industry will continue to invest resources in more efficient engines, more efficient airframes, and more efficient materials that deliver aircraft that consume less fuel,” Greco Johnson said.

Business and general aviation manufacturers remain committed to their research and development (R&D) efforts, a spokesman for the General Aviation Manufacturers Association agreed.

This includes developing new airframe and engine technologies and materials.

“Our companies are still proceeding with their R&D work,” he said, “and to the extent that the administration can support what our companies are doing, that would be very helpful. It cannot be done alone in the industry. It cannot be done alone by the government. It’s got to be a joint effort.”

This is especially true given the far-reaching technologies being explored. “Our companies are engaged in these revolutionary technologies, whether hydrogen, electric, or eVTOLs,” he added. “The technologies will prove pretty valuable down the road.”

Meanwhile, Huggard stressed: “Aviation is one of the best stories right now in our economy. We can in many ways continue to lean into that because it’s a strong message that both furthers our efficiency and lowers our emissions, reduces the carbon footprint, and the impact on the environment, but it’s also about real leaps forward in terms of innovation within aviation.” ■

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GA gears up for roadmap to growth in Saudi Arabia

BY PETER SHAW-SMITH



The Helicopter Company, operator of this Leonardo AW139, is considered a “champion” in the challenging Saudi Arabia environment.

When the Saudi General Authority for Civil Aviation (GACA) announced in May that it was removing cabotage restrictions on foreign operators, the international business aviation community immediately sensed the opportunity of a lifetime—tempered by the realization that an immense amount of work needs to be done to bring Saudi general aviation up to speed.

Awad Al-Salmi, GACA’s deputy CEO for economic policies and logistics, said issuing a foreign operator certificate to the first business jet company to operate domestically in Saudi Arabia would enhance competition, stimulate sector growth, and improve service quality.

Imtiyaz Manzary, GACA’s general manager of general aviation, said the authority is working to remove restrictions on the operation of charter flights, but he faces an immense task to marshal the resources required to coordinate the interlocking pieces of the jigsaw.

According to official figures, the sector saw 24% growth in movements last year, up from 19,000 flights in 2023 to nearly 23,600 in 2024. Domestic movements increased 26% to more than 9,200 flights, while international movements rose 15% to 14,400 flights. Major airports led growth: Jeddah saw business jet traffic increase 30%, Riyadh 22%, and Dammam 7%, according to official statistics.

Ian Moore, chief commercial officer at parent Vista Global, sees VistaJet’s entry, announced in August, as a coup. Its General Authority of Civil Aviation Regulations (GACAR) Part 129 foreign operator certificate will allow it to connect key Saudi cities and emerging destinations while integrating into its global fleet model.

“VistaJet has been active in and around the Kingdom for more than 15 years, with consistently strong growth—even before this milestone, we had seen a 32% year-on-year increase in membership in the first

half of 2025, which shows the appetite for the unmatched connectivity and service that we offer,” he said.

Early indications point to strong demand from Saudi customers seeking the flexibility of private aviation without the capital tie-up of ownership, and international travelers who can now use VistaJet to move between Riyadh and Jeddah, to the Red Sea, or to other major Vision 2030 projects, Moore believes.

“Looking ahead, we see this milestone as more than a regulatory success—it is the next stage of private aviation in Saudi Arabia,” he said. “It strengthens connectivity, accelerates investment, supports tourism, and positions VistaJet to play a defining role in one of the most dynamic markets in the world.”

Domestic players have greeted the development cautiously. NasJet sees the government as its primary charter client base, while Aviation Horizons hopes the playing

field will remain level as it opts to develop its charter business, eschewing aircraft management over concerns about foreign incursion into that business.

“Let domestic operators up their game; competition is healthy,” said Yosef Hafiz, v-p of sales and marketing for NasJet Private Aviation, Commercial. “[Competition will help us] do better and raise our standards higher—to the worldwide standard.”

Saudi Arabia does need the capacity, as too few aircraft are based there, he said. “We will not have enough aircraft unless the Public Investment Fund or a similar entity takes the initiative to establish a company—a champion. We’ve only seen [a] champion in helicopters: The [PIF-owned] Helicopter Company.”

Other foreign operators could enter, but competitors for VistaJet have yet to be identified. “I’ve been told verbally by [GACA] that this is an arrangement for only three years. From May 1, 2025, to April 30, 2028, they will allow foreign operators,” Hafiz said. “Then, they’re going to ask them to establish a local AOC. They will [then] become [local operators].”

“From my perspective and from that of any Saudi operator, we welcome the competition—fair competition,” said Mohammed Bokhari, co-founder and CEO of Aviation Horizons, Jeddah. He hopes foreign firms will operate under the same conditions as Saudi ones. In addition to 15% VAT, VistaJet is expected to face a requirement to pay 20% corporate tax. “We have been discussing with GACA how they will implement these changes. All we’ve heard is an announcement. Maybe [VistaJet alone will enter], or perhaps one more company.”

Sector development is a daunting prospect for GACA acting alone, he said. Growing the market requires cooperation from different ministries: transportation, investment, foreign affairs, and interior, and other organizations, to support GACA’s ongoing effort.

Bokhari said formation of a commission would help the authorities to speed

up decision-making. “The GACA is having difficulties dealing with all kinds of regulations on employment, HR, and other areas. For their plans to be effective, they need everybody’s cooperation. A committee should be formed for everyone to work together towards that goal.”



MOHAMMED BOKHARI
CO-FOUNDER AND CEO OF
AVIATION HORIZONS, JEDDAH

CRUCIAL PHASE

The Kingdom’s general aviation sector is entering a crucial phase. In May 2024, at the Future of Aviation Conference, GACA launched its General Aviation Roadmap, aimed at developing the general aviation sector and its contribution to GDP. The goal is tenfold growth, reaching \$2 billion by 2030, while creating 35,000 jobs.

But it is clear that the priority of GACA President Abdulaziz Al-Duailej is a laser focus on scheduled aviation, leaving general aviation jostling for position. In January, he won a second term, a reappointment that has seldom occurred in recent decades. His predecessor, Abdulhadi Almansouri, served for fewer than two years in the role.

Speaking at the World Economic Forum in Davos in January, Mohammed Al-Khuraishi, another GACA deputy CEO, said the roadmap offers private aviation investment prospects worth \$2 billion for investors, operators, manufacturers, and service providers.

Little information has been forthcoming on the build-out of infrastructure plans involving six new general aviation

airports and nine new private terminals (FBOs), although two smaller airports have now been officially designated as general aviation-only facilities.

GACA has nominated Malham Airport (OESL), host to the biannual World Defense Show since 2022, as one of six general aviation airports designed to serve private flights into Riyadh. Located 70 km (44 miles) north of the capital, it will be close enough to challenge the likely dominance of King Salman International Airport, due to be fully operational in 2030.

The roadmap specifies other general aviation-only airports in Jeddah (OEJN), Neom Bay Airport (OENN). Makkah, and Amaala (no ICAO codes). Formerly designated Jubail Naval Airport, Jubail Airport (OEJB) has also been officially selected by GACA as a general aviation airport.

Nine FBOs are also to become operational in due course, but to date, Jetex’s undertaking to set up a facility at Red Sea International Airport (OERS) is the only new deal that has come to light. Jetex expects the Red Sea facility to open later this year.

Adel Mardini, founder and CEO, told *AIN* Jetex hoped to make further announcements concerning its Saudi business after press time in October. Incumbents Jet Aviation and Saudia Private Aviation are legacy FBO operators expected to continue to dominate the market, but many believe the time is right for increased competition on the ground.

CAUTIOUSLY OPTIMISTIC

“The international response to GACA’s call for investment in Saudi Arabia’s business aviation infrastructure has been cautiously optimistic,” Abdullah Aljawini, managing director, Riyadh-based Dawli Aerospace, told *AIN*.

“It was marked by growing interest but challenged by regulatory and operational complexities that included, for example, market access,” he said. “However,

investors remain in an exploratory phase, conducting feasibility studies, forming local partnerships, and awaiting clearer regulatory frameworks before committing capital.”

He said Saudi Arabia’s business aviation sector is no longer a “‘closed jewel.’ The sector is opening to the world with the terms of engagement continuing to improve. Saudi Arabia’s strategic business outlook aims for a diversified local and foreign investor base.”

Sector participants have seen the market recover from earlier travails, fueled by an increase in private sector activity. Mohamed Husary, founder and executive president, UAS International Trip Support, said demand for and confidence in general aviation were growing.

“There’s been a massive improvement in operational processes, particularly regarding permits, slots, and coordination. Authorities are more efficient, lead times have reduced, and operators are experiencing more consistency and reliability. Key hubs like Riyadh, Jeddah, and Neom are getting serious infrastructural investment, and we are seeing companies investing in more MRO, FBOs, and VIP services,” he said. “I’m highly optimistic about 2026 and concur with the projected double-digit growth of the market. We’re going to see greater involvement from international operators, more regional airport demand, as well as investment in local services. Hopefully, more regulatory streamlining



ABDULLAH ALJAWINI
MANAGING DIRECTOR, RIYADH-BASED
DAWLI AEROSPACE

“ The sector is opening to the world with the terms of engagement continuing to improve. Saudi Arabia’s strategic business outlook aims for a diversified local and foreign investor base. ”

will create an even more attractive operating environment.”

WORLD TOP 20

Rolland Vincent, president of Rolland Vincent Associates and JetNet iQ creator, told

AIN Saudi Arabia is home to almost 150 turbine-powered business aircraft, ranking it in the world’s top 20 countries. Fully 70% of business aircraft based in the Kingdom are business jets, and of those, 73% are in the large jet segment, almost twice the world average.

With ambitious investment projects like Neom underway, the Saudi government’s Vision 2030 strategy, including public-private partnerships, appears to be working. “New airports, FBO and MRO facilities, and luxury hotels are contributing to growth in business jet flight activity, up by 24% year-on-year in 2024,” he said.

“While the Saudi-based in-service fleet includes a relatively high proportion of government-owned and -operated aircraft, the opportunities to grow the fleet with new mid- and long-range business jets and bizliners are obvious.”

John Hewett, regional v-p EMEA for Universal Weather and Aviation, said the company decided to establish Universal Weather and Aviation Arabia earlier this year, with the expectation of becoming operationally ready before the end of 2025, initially in Riyadh. “Saudi Arabia is one of the most dynamic and exciting GA markets globally, with an unprecedented scale of investment and reform,” he said.

General aviation airport projects remain at different stages of planning and development, he believes. Flagship giga-project Neom is attracting significant investment, though finalized development plans have



Jet Aviation was a pioneer in developing FBOs in Saudi Arabia, starting in 1979 with a Saudi-Swiss joint venture. The FBO chain opened this facility in 2012 in Medina, an important pilgrimage center.

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not yet been confirmed. Earlier this year, infrastructure plans were announced for new hangar and general aviation terminal facilities at Jeddah and Dammam.

“Universal has expressed strong interest in contributing to these opportunities, and we expect further news soon,” he said. “Jeddah and Dammam, the second and third busiest airports by traffic, will complement our [ground handling and concierge] services in Riyadh. Local authorities have indicated their ambition to have new facilities operational by early 2026.”

HIGH-PROFILE EVENTS

Jet Aviation established a presence in Saudi Arabia in 1979, with a Saudi-Swiss joint venture that became the first company to set up an FBO in the Kingdom.

Hardy Butschi, v-p of regional operations Middle East, said strategic investments in projects such as Neom, the Red Sea Project and Al-Ula, and the establishment of an increasing number of high-profile entertainment and sports events—for example Formula E, boxing, and music concerts—were all fostering growth in tourism, entertainment and business, increasing VIP international travel and boosting demand for business aviation.

“The country is continuing to make efforts to increase foreign investment, and the influx of multinational companies establishing regional headquarters in Riyadh is further boosting activity in the industry,” he explained. “Since 2023, the Saudi aviation authority has continued to implement measures that foster the growth of business aviation, such as lifting restrictions on the commercialization of empty legs and simplifying the economic license requirements for operators and investors by removing the requirement for a Saudi partner in maintenance and FBO services.”

Air Charter Service opened an office in Riyadh in September. “Demand for domestic charters varies widely—from smaller



Jet Aviation's FBO in Jeddah, where last year business aviation traffic climbed 30%.

eight-seat jets used for quick executive trips, to larger aircraft such as Boeing 737s chartered to transport sports teams or larger groups across the Kingdom,” Elie Hanna, Middle East CEO told *AIN*.

The focus of The Helicopter Company (THC) is on developing a civil helicopter industry in Saudi Arabia that is aligned with Vision 2030, supporting major projects and expanding a national emergency medical service, chief commercial officer AJ Baker told *AIN*. New aircraft arrivals have allowed the sale of older models, facilitated by Rotortrade, a helicopter sales specialist wholly owned by THC.

Its fleet ranges between 60 and 70 aircraft, including Leonardo AW139s and Airbus H160s, H145s, and H125s. In 2025, more than 25 new helicopters were received, replacing 15 older units. The company plans 15 deliveries and five to 10 releases in 2026. Urban Air Mobility passenger services are also planned. Future growth involves night vision goggle operations, surveying programs, and upcoming mergers and acquisitions expanding operations beyond Saudi Arabia.

THC generally meets market demands but may partner with foreign operators for specific needs. “There are many unique circumstances to be faced for emerging

operations here, and these pose challenges for foreign entities. THC looks to partner with foreign operators where a specific aircraft type or a specific skill or experience need is identified,” Baker said.

Underscoring the attractiveness of the Saudi market, Corporate Jet Investor Riyadh is set to take place for the first time on December 10 to 11.

While Saudi Arabia's aviation strategy emphasizes scheduled passenger traffic, Universal's Hewett said general aviation is not being overlooked and is seen as a vital enabler of business connectivity, tourism, and giga-project development. “Service provision has already improved notably in 2024, and GACA's roadmap recognizes GA's strategic importance alongside commercial aviation. GACA has also been extremely supportive of Universal's ambitions to enter the Saudi market and of the vital role general aviation plays in complementing commercial aviation,” he said.

JetNet iQ's Vincent said it is exciting to witness the emergence of business aviation as an important component of the Saudi government's Vision 2030 strategy. “Recent examples of bizav successes in nearby UAE and Qatar offer glimpses of what is possible for the Kingdom to achieve in the months and years to come,” he concluded. ■

AIN's Annual 2026 FBO Survey

MAKE YOUR VOICE HEARD

Aircraft operators and other FBO users can rate airport service providers they frequent worldwide in five categories—line service, passenger amenities, pilot amenities, facilities, and CSRs—as well as give a shout out to facility staffers who went above and beyond in providing great service.

The results will be announced at AIN's 2nd Annual FBO Awards Dinner & Gala on March 26, 2026, and will appear in the April 2026 issue of **Aviation International News**.

FBO Survey respondents will be entered to **win a \$250 gift card.**

For more information on AIN's FBO Awards Dinner & Gala visit AINFBOAwards.com

To access the survey and record your votes, visit: FBOSurvey.com





Dozens of Mitsubishi MU-2s were hosted on the Million Air ramp at Addison Airport for the renewal of the Pilot's Review of Proficiency seminar.

MU-2 PROP returns from hiatus

BY MATT THURBER

Mitsubishi Heavy Industries America (MHIA) has brought its MU-2 Pilot's Review of Proficiency (PROP) seminar out of hiatus, marking its return in September in Plano, Texas. PROP seminars used to be held nearly every two years before taking a long break, and now the company is planning to continue serving MU-2 owners and prospective buyers with ongoing safety events.

At the recent MU-2 PROP seminar, owners of many of the more than 200 still-flying MU-2s flew to Addison Airport in Texas for two days of sharing information and MU-2 learning sessions. Also attending were pilots interested in buying MU-2s who wanted to learn more before making a purchase decision. The MU-2 is priced relatively well and is still fully supported by Mitsubishi and its U.S. MHIA team in Dallas.

The first day started with a presentation by Ron Renz, a long-time MU-2 pilot and owner, flight-test pilot, engineer, and

mechanic, who focused on knowing your airplane. "When was the last time you really looked at your AFM or POM?" he asked, pointing out that because MU-2s are getting older, each one is unique, with multiple modifications that pilots need to understand.

"There are no MU-2s the same," he said. "Not a single MU-2 has the factory configuration anymore. Have you studied your installation? Look at the AFM, the limitations, and understand the gotchas; everyone has them."

Each modification is required to have instructions for continued airworthiness (ICA). "Every mod has something in the maintenance section that you need to do," Renz explained. "Is your shop doing those? If they don't know about [the ICA]...that's one reason why you go to the MU-2 service center."

Peter Voulgaris, a SimCom instructor who teaches the MU-2 program, echoed Renz's advice during his engine systems

presentation. "It's important to train," he said. "We're trying to get you to go back in the books and understand what they say. If you have a problem, it's important to go into the checklist. If you're in sheer panic mode and logic has deserted you, it's hard to understand what these lines [on the checklist] are about."

To emphasize his point, Voulgaris explained a confusing situation where one of the engine's beta lights doesn't illuminate and what that could mean when landing on a contaminated runway at night, when the drag from beta mode and also reverse thrust may be needed to avoid a runway overrun.

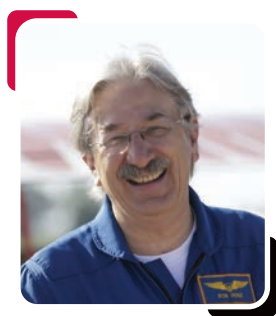
The MU-2 stopping distance chart is based on using beta mode, but not reverse thrust. "If you don't see the beta light, that engine isn't going to reverse," he explained. "You have to decide if you use one [engine's reverse thrust] or just try to go with brakes. If it's contaminated, it is an interesting situation. If the beta light doesn't illuminate...

be careful. You could end up with asymmetry in your stopping.

“Most people, when they’re presented with this problem, they don’t understand what they’re seeing. Try to learn as much as you can out of this.”

NO NEW AUTOPILOT ON THE HORIZON

One of the critical issues raised by MU-2 owners during the seminar was the lack of a Garmin autopilot upgrade for the twin turboprop. Although the MU-2 fleet has a variety of avionics installed, no two are the same, and many owners have settled on Garmin upgrades and want to add a modern digital autopilot to their airplanes. The original Sperry and Bendix autopilots still work and can be serviced, but they are getting old, and Bendix servo clutches are in short supply.



RON RENZ
MU-2 OWNER AND TEST PILOT

“There are no MU-2s the same. Not a single MU-2 has the factory configuration anymore.”

“We don’t have it on our schedule,” said Joe Megna, Garmin aviation and autopilot product manager. “The certification team is very busy [with] other certifications. I know the need for a new autopilot.” Megna, who spent many years working on MU-2s, asked

the audience for raised hands to indicate interest in a Garmin autopilot, and almost every person in the room raised a hand.

Megna pointed out that a Garmin autopilot upgrade for the MU-2 would also require installation of a TXi display, but no one seemed fazed by that prospect. One MU-2 owner said he is avoiding any upgrades at the moment because he wants to wait for a Garmin autopilot and doesn’t want to install something that would have to be removed for the upgrade or spend money on Garmin equipment if a new autopilot isn’t in the cards. “Garmin’s losing \$100,000 to \$200,000 [per MU-2] because there’s no autopilot,” he said. “Why give Garmin money when I don’t see the effort? I’m really sore about this. I just want to give Garmin money.”

The most recent twin turboprop for which Garmin certified an autopilot was the Piper Cheyenne II, of which there are about 250 worldwide. That fleet is more homogeneous compared to the MU-2s, which are split between short- and long-body models. Garmin would have to research how much work would be required to certify an autopilot to cover most MU-2 configurations, Megna explained.

“For me, it’s about safety,” he assured the audience. “What I need to do to drive this home...I need to present to leadership that this is going to be worth the effort.”

Tom Kislan, founding member of the MU-2 Flyers association and an MU-2 owner, started a database of MU-2 owners interested in a Garmin autopilot and asked them to indicate whether they would be willing to put down a deposit. “We know our voices are heard more as a group than as individuals,” he said.

“I’m your best advocate in Garmin to get this done,” Megna said. “My key thing is how many are out there, but also how many projects [it would take] to cover the models. We only have one or two I’m getting pushed through in the next year and a half. Now it’s what’s next? If they said let’s

THE RESURGENCE OF AIRCRAFT OWNER GROUPS

Aircraft type clubs and owner associations have always offered significant benefits for members, especially for aircraft that are no longer manufactured. But now these groups are stepping up with compelling new reasons to join.

Recently new insurance underwriters dedicated to the needs of owner-pilots have teamed up with these associations. Class A Insurance and 5X5 Aviation Insurance—partnering with the Citation Jet Pilots (CJP) and Piper M-Class Owners & Pilots (PMOPA) associations, respectively—recently began offering coverage for high-performance airplanes. Both direct-to-consumer underwriters provide discounts for owner association members, and neither focuses on pilot age to deny coverage, relying instead on flight data to support the underwriting process.

Almost every aircraft type has an owner association—for example, the newly formed Kodiak Owners and Pilots Society, created to serve the owners of the more than 350 Kodiak single-engine turboprops that have been delivered. CJP has long been the go-to for safety information about Cessna Citations, and its members have an enviable safety record.

Pilatus PC-12 owners have the Pilatus Owners and Pilots Association, and TBM flyers have the TBM Owners and Pilots Association. These groups aren’t just for smaller aircraft; a few years ago, a group of owners formed the Independent Falcon Aircraft Operators Association.

Meanwhile, PMOPA held its annual convention in Lake Geneva, Wisconsin, last month, with 260 attendees.

“This year’s PMOPA convention demonstrated the association’s ongoing commitment to excellence in education, safety,



MU-2 pilots absorbed valuable information during the latest PROP seminar.

go ahead, we wouldn't be able to start until the third quarter of 2026, and it's an eight-to nine-month project."

OPERATIONS AND SAFETY

The next day of PROP 2025 focused more on operational aspects of MU-2 ownership. Master of ceremonies for the day was Pat Cannon, a designated pilot examiner and 11,000-hour MU-2 pilot who was instrumental in developing the marque's icing training program and who has held the same role for all of the PROP programs since 1982.

Although it wasn't MU-2-related, NTSB board member Michael Graham's analysis of two accidents was nevertheless illuminating. He had been hoping to provide an update on the most recent MU-2 accident, on April 12 near Copake, New York, but none of the docket information had been released. "My mantra," Graham said, "is respect the unexpected and manage your risks. Things don't always turn out like you planned."

Cannon and Rick Wheldon, who was also involved in MU-2 icing research and development of the MU-2's Alpha Systems angle-of-attack upgrade, gave an update on icing training and mitigation. MU-2 pilots must undergo icing training by viewing the official MU-2 icing video either once or every two years, depending on how

their MU-2 is equipped. The video is now shorter and updated with information on new icing forecasts and a more in-depth discussion of types of icing, according to Cannon.

Wheldon and Cannon shared photos from an instance where an MU-2 pilot encountered what was likely supercooled large droplet (SLD) icing over Vancouver, Canada. The pilot described the icing as "Like somebody was taking yogurt and throwing it over the airplane with a spoon."

After the ice-detector light illuminated, airspeed dropped by 10 knots in 30 seconds, and the pilot added power and descended.

While the deicing boots were working, ice was accumulating behind the boots. Cannon said he suspected that the icing this pilot encountered was SLD, sized from 200 to 300 microns, far larger than the 50 microns used in certification testing. "This is an emergency," Cannon said.

The rest of the seminar included a case study of an MU-2 accident in Argentina, a discussion of training requirements, and an update on the MU-2 training program at SimCom, engine rigging and adjustments, operational tips, and another case study of an MU-2 accident involving an extremely fatigued cargo pilot. ■

and member engagement," said PMOPA CEO Mike Nichols. "From robust, safety-focused programming and a dynamic exhibit hall to exceptional networking opportunities, the event reflected the strength of our community and the value PMOPA delivers to its members."

For MU-2 owners, there is also an owners' association called MU-2 Flyers, and it holds safety seminars called MAX RPMs. The return of the MU-2 PROP seminar provided another sign of the resurgence of owner clubs and their active involvement.

Meanwhile, the HondaJet Owners & Pilots Association (HJOPA) is another such active group, recently developing a training program—HJOPA Proficient Pilot Program (P3)—that it hopes will enhance safety with a comprehensive approach to landings, including a video, mentorship, and data gathering.

Most associations offer training programs that go well beyond minimum FAA requirements. Participation in these training programs can help offset insurance costs, especially when coupled with flight data monitoring systems that record and analyze pilot performance.

Evidence that owner-group safety programs work comes not only from CJP but also from the TBM Proficient Pilot Program (TBM-PPP), which launched at the 2024 Avex Aviation Safety Seminar. In its first year, TBM-PPP's 50 members with a collective total of 70,000 accident-free hours helped move the group towards its goal of 100 members, three years, and zero accidents.

Flight data is recorded using Daher's Me & My TBM platform, and "TBM-PPP monitors every flight, flags performance drift early, and builds accountability through a member-run safety management system and peer 'safety buddy' reviews—without punitive measures," according to the group.

M.T.

► continued from page 10

the same nine-month period last year.

In the first three quarters of last year, 11 people were killed in four accidents of N-numbered business jets (one under Part 135) versus eight fatalities from three accidents (all under Part 91) over the first two quarters of this year. There were no fatal accidents of U.S.-registered business jets in the recent third quarter.

On Feb. 10, 2025, a parked Gulfstream G200 was struck by a U.S.-registered Bombardier Learjet 35A that veered off the runway while landing. The Learjet pilot was killed. Another fatal N-numbered bizjet accident in the second half occurred on March 13, 2025, when a Cessna Citation CJ2 on a planned ferry flight made a right turn and climbed to about 950 feet after take-off before it began a rapid descent into the ground. The sole pilot aboard died.

On May 22, 2025, a Citation S550 was destroyed when it crashed on an approach. The pilot and five passengers were fatally injured.

Six accidents of non-U.S.-registered business jets claimed 21 lives in the first nine months of 2025, compared with just two accidents and four fatalities in the like time frame in 2024. The accidents this year and the number of fatalities were: January 9, a privately-operated, Brazilian-registered CitationJet CJ1+ (1); January 29, a Venezuelan government-operated Citation S/II (3); January 31, a Mexico-registered Learjet 55 air ambulance (6); June 3, a Venezuela-registered private Citation I (5); August 7, a Kenya-registered Citation 560 (4); and September 24, a third fatal accident of a Venezuela-registered business jet, a government-operated Learjet 55 (2).

In the first nine months of this year, 23 souls were lost in seven N-numbered business turboprop crashes (including one Part 135, one public/government), compared with 15 killed in six accidents (all under Part 91) last year. Forty-seven crew and passengers died in nine non-N-numbered turboprop accidents this year versus 45 fatalities from 11 accidents last year. ■



The NTSB is still investigating the fatal crash of a Learjet 55 in Philadelphia on Jan. 31, 2025.



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Cirrus Aircraft continues to notch firsts on safety front

BY MATT THURBER



MATT THURBER

The latest development by Cirrus Aircraft is Safe Return Emergency Autoland for the piston-powered SR series.

Cirrus Aircraft airshow and convention exhibits typically attract large crowds of existing owners and those interested in buying an SR20, SR22, or Vision Jet. But, visitors will have to look closely to see the most interesting technology update to the piston-powered SR series, the addition of Safe Return Emergency Autoland. The sole visual indication of the Garmin Autoland system's existence on the SR20 and SR22 G7+ is the button on the ceiling, which is easily accessible by passengers.

Autoland was first installed in single-engine turboprops such as the Piper M600, Daher TBM series, and Pilatus PC-12, and the single-engine Vision Jet. Later, it was offered as an upgrade for Beechcraft King Airs, and recently, Cirrus added Safe Return Emergency Autoland to the SR20 and SR22, the first application of the technology to a piston-engine airplane.

Incorporating Autoland in a piston-engine airplane is more complex because the necessary autothrottle system is generally found only in turboprops and jets.

Autothrottles are a safety and performance improvement for turbine airplanes, making it easier to fly the airplane through rapid altitude and speed changes without having to focus on power settings. In the SR series, however, there was no autothrottle system to build on, so Cirrus and Garmin engineers had to start from scratch.

"Safe Return Emergency Autoland is a big deal coming into pistons," said Todd Simmons, president of customer experience at Cirrus Aircraft. Not only was the autothrottle system required, but also

automatic flap actuation, pitot heat, communications, transponder switching to the emergency code, navigation to a suitable airport, automatic smooth landing and braking, and finally, engine shutdown so the passengers can egress safely. One difference between Autoland in turbine airplanes and the SR series is that in the latter, the autothrottle is only for use with Autoland and not for normal flying.

There was a discussion about the benefits of autothrottle for Cirrus SR pilots, but that would have delayed deploying the safety benefits of Safe Return while waiting to get the expanded use certified. “The future holds a lot of promise about what those possibilities can be and when the time is right,” Simmons said.

AS BIG AS CAPS

“Technology marches forward, and we’ll make the right decisions then, but we didn’t want to not bring this to market based on that decision. We see [Safe Return] as big as the first quarter century of what CAPS [the Cirrus Airframe Parachute System] has meant to this company,” he said. “[We’re] standing on the shoulders of CAPS, and the next quarter will be essentially defined by the net safety technology [that Cirrus has developed].”

CAPS and Autoland are complementary safety systems, in Cirrus’ view. Simmons summarized the basic idea as, “If the plane breaks, pull the chute; if the pilot breaks, push the button. I don’t mind being cliché, because it can be that simple, and the two systems are made to be harmonious with each other.” Safe Return deploys automatically if it detects the pilot as unresponsive.

There are even scenarios where it might make sense to use the CAPS after having pushed the Autoland button, such as Safe Return determining that it can’t get the airplane safely to a suitable airport. In this case, Safe Return would advise the occupants to deploy CAPS.

These safety tools include the autopilot’s level button, which automatically

returns the airplane to straight and level flight, even if pushed when the autopilot is shut off. All three combine to give Cirrus pilots—and their passengers—more confidence about flying in what most non-aviation people consider a higher-risk “small” airplane.



TODD SIMMONS
PRESIDENT, CUSTOMER EXPERIENCE
AT CIRRUS AIRCRAFT

“If the plane breaks, pull the chute; if the pilot breaks, push the button. I don’t mind being cliché, because it can be that simple, and the two systems are made to be harmonious with each other...”

“That’s how we look at it,” Simmons said. “It’s giving yourself permission to engage, permission to participate, permission to be a passenger.

“We consciously made those [design] decisions. In this case, I look up and I see a red handle, and behind it the big red button; red is for emergency, it’s why they’re that color, and how easy [it is] to access them. For us, the ethos and company mantra is around our fundamental focus on safety first and how that enables us to use that word, ‘confidence.’ To me, everyone,

including the pilot, being confident is about being in the airplane and having a safe life.”

To that end, two years ago, Cirrus launched its private pilot program, a course of study designed to teach people how to fly in a Cirrus, starting from day one. More than 200 people have earned their private license as a result, and the program now has more than 3,000 enrollees.

Cirrus’ educational designers are using modern tools for the ground school, which is tightly integrated with the flying portion. “[This is] us developing learning materials that meet our customers where they are,” Simmons said. “We live in a portable device world. We live in an interactive world. We are fast approaching the virtual reality world.” All of these tools are employed, including virtual reality in the preflight walkaround course.

Most of the training programs are part of the Cirrus Approach system, which has 63 courses and more than 50,000 registrations. “If we’re bringing more people into aviation and showing them the power of personal aviation, we’re good with that,” he said.

INTRODUCTION TO TURBINE

What Cirrus is also doing with the Vision Jet is introducing a new group of pilots and owners to turbine operations in an airplane that is in many ways simpler to fly than a piston-powered SR.

The Vision Jet also acquaints pilots and owners with the need to obtain a type rating. Even though the Vision Jet is arguably easier to fly compared to a high-performance single-engine turboprop, which doesn’t require a type rating in the U.S., Cirrus appreciates the benefits of the type rating process.

“The benefit there is that we’re seeing a safety record that’s reflective of the strength of what a type rating can be,” he said. “We embrace that the type rating and the program that we built is right for our customers. To date...the safety record, the



Deliveries of the Cirrus Vision Jet, the only production single-engine personal jet, are nearing 700 and fleet hours have surpassed 400,000, with 101 delivered in 2024.

training record, is very reflective of that. We've just passed 400,000 total fleet hours with over 650 [jets delivered]." Even if Cirrus decided to build a turboprop airplane, it would still insist on a robust training program despite the fact that a type rating wouldn't be required. "We exactly would do that," he said.

Cirrus did learn a lesson fairly early on that has contributed significantly to improving its training programs and lower accident rates. "We taught ourselves that in 2011, we had an airplane that was capable of being so much safer than it was," Simmons explained. "That principally was around CAPS usage, and we realized that we had made the right airplane. We had not got the pilot right—if I can say it that way—and the training program right. That was the acceleration of the program called Cirrus Approach, and that was when our safety record improved.

"Today, we're well below the general aviation industry average, both in total number of incidents and total number of fatal accidents. And until we get to zero, we're not going to stop, but we are on that right trend. I dare say that our trend alone moves the industry, given how many

Cirruses are in the air at any one time and how often they're flown. The total fleet time of the SR fleet is over 18 million flight hours. And we're approaching 11,000 [delivered]."

During 2024, Cirrus delivered 731 airplanes, including 101 Vision Jets and 630 SR series. "That's no shabby number," Simmons said.

There's no doubt that Cirrus is working on new developments; after all, he pointed out, customers always want to go higher and faster and carry more. "When you look at the generational changes in the SR platform and the same in the Vision Jet, I think we're telling folks how we think about bringing [in] technology. We won't do it until it's mission-ready and mission-capable."

At a show like EAA AirVenture, Simmons explained, visitors get to see many different kinds of new ideas and technologies, and they may ask, "Why can't I have this on my Cirrus?"

"Hang on," he said. "That's got to fit the mission every time and meet all of our quality, reliability, and performance standards, and safety standards, [so it] continues to fit that mission. But when that's

right, I think you've seen Cirrus, over time, bring those technologies into the airframe, into the flight training, and into our customers' lives.

"The road map today tells you how we think about what's next. My goodness, the G7+ and Safe Return Emergency Autoland is exactly that. It's no accident we were first to bring it into a piston [airplane], and it's no accident that we prioritize that kind of safety system going into a piston, to be first. I think that's very telling about how we at Cirrus think about what's next after that.

"[We have] a tagline, 'Safety always in reach.' When you make the airplane simpler to fly, you inherently make it safer. When my workload is reduced, and then when you bring in technology like this, you truly have put it within easy reach. And in that way, the tagline is more than just a line; it truly says the way we're thinking about that. So I think that's one where we've hit the nail on the head.

"It truly can be the next 25 years of how safety gets defined at this company. In doing that, we bring many more folks into aviation that otherwise might not have chosen to participate, and we all win when that happens."



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Brelyon tackles VR motion sickness

BY MATT THURBER



Many people feel motion sickness with virtual reality headsets, and the Brelyon immersive displays can mitigate this effect.

A significant effort is underway to replace flight simulator visual systems with virtual- or mixed-reality (VR or MR) headsets, which give the user an unlimited field of view in any direction. Headsets also have the advantage of eliminating simulators' bulky visual displays, which have a narrower field of view and add significant cost to the price of training devices.

At the same time, not everyone adapts to VR or MR without experiencing mild or even worse motion sickness. A start-up company called Brelyon has developed an alternative, a so-called "immersive monitor" that looks and feels like the view through a headset without having to wear a head-mounted device, and provides true depth and simultaneous views of multiple layers.

The U.S. Air Force has adopted headset-based training in its Pilot Training Next program but found that 24% to 27% of students were unable to tolerate more than

7 minutes in the VR/MR world, said Alok Mehta, COO and co-founder of Brelyon.

Brelyon's display is designed to eliminate the convergence mismatch or vergence accommodation conflict that can occur with VR/MR headsets and cause discomfort. For normal stereoscopic vision, the eyes and brain work together to provide a sharp image on the retina using vergence and accommodation.

Vergence is the independent rotation of the eyes that enables perception of an object as a single object, and if this isn't correct, double vision of that object can occur. Accommodation focuses images so they are sharp on the retina. If both vergence and accommodation distances don't match, the result is vergence accommodation conflict, which is common with 3D images.

For this reason, most people are comfortable with legacy 2D displays, but they

lack the feeling of immersion in the environment that is replicated, for example, in a flight simulator.

Mehta, who holds a doctorate in optics and optical sciences, was a principal scientist at DARPA and has been working for many years on ways to get more capability and performance from smaller size and weight and lower power-using displays.

What is needed to overcome the drawbacks of 2D displays and 3D convergence mismatch, he explained, is optimal visual ergonomics. Brelyon "is bridging that gap, with comfort, performance, and immersion," he said. "We're focused on practical solutions."

The goal, according to Brelyon founder and CEO Barmak Heshmat, is: "Can you mimic a headset-like experience by engineering the light around the user instead of forcing them to use a device?"

That solution is Brelyon's Ultra Reality (UR) and Ultra Reality Extend (URE) immersive monitors, which allow for information to be layered, with "multiple data streams at varying depths," according to the company, enabling users to "visualize vast amounts of data in an organized and easily accessible way." That includes arranging the data layers as needed and also adjusting the transparency of each layer.

Looking at a UR or URE monitor, the viewer will see two channels of 8K aggregate resolution, with two depth planes, 122 inches at the deepest layer and 40 inches at the near layer. The actual monitor measures only 30 inches, but has a horizontal field of view of 110 degrees and a vertical field of view of 51 degrees. While looking at the monitor, the user can move around and still perceive the depth between the layers, according to Brelyon. With HDMI or DisplayPort inputs, the Brelyon displays can be used like a typical computer monitor.

The company began as a 3D display manufacturer, according to Mehta, but the market required too much of a customized solution. "We realized...before we raised our first capital, that our core engine, this idea of optical depth modulation, could be used to provide monocular-depths virtual displays that could supersede the displays that we all use every day," he explained. "We now have the ability to control all of

the pixels that are provided through our display solution in very unique ways."

Flight simulation requires "this concept of things that should look close to you, should be optically close to you," he said. "As you propagate through that environment, those [other] things are farther away."

A BIG DEAL

After joining a technology incubator run by a pilot who encouraged Brelyon to consider the flight simulation market, the company demonstrated the URE monitor at the Interservice/Industry Training, Simulation and Education Conference.

"That's when Lockheed Martin first saw us and said, 'Hey, this is a big deal for everything that we're doing,'" Mehta said. "They brought in their computer [for] the flight training environment, plugged it in, and that was the first aha moment, because they brought in pilots, and that was the first time that we saw there really is something [to this technology]."

This led to further investments in Brelyon and work for the U.S. Air Force. "Everything that we're doing in the defense world, we have parallel activities in the commercial domain," Mehta said. This includes working with an airline that wanted to set up training activities at its bases so it wouldn't have to send pilots to a distant simulator training company

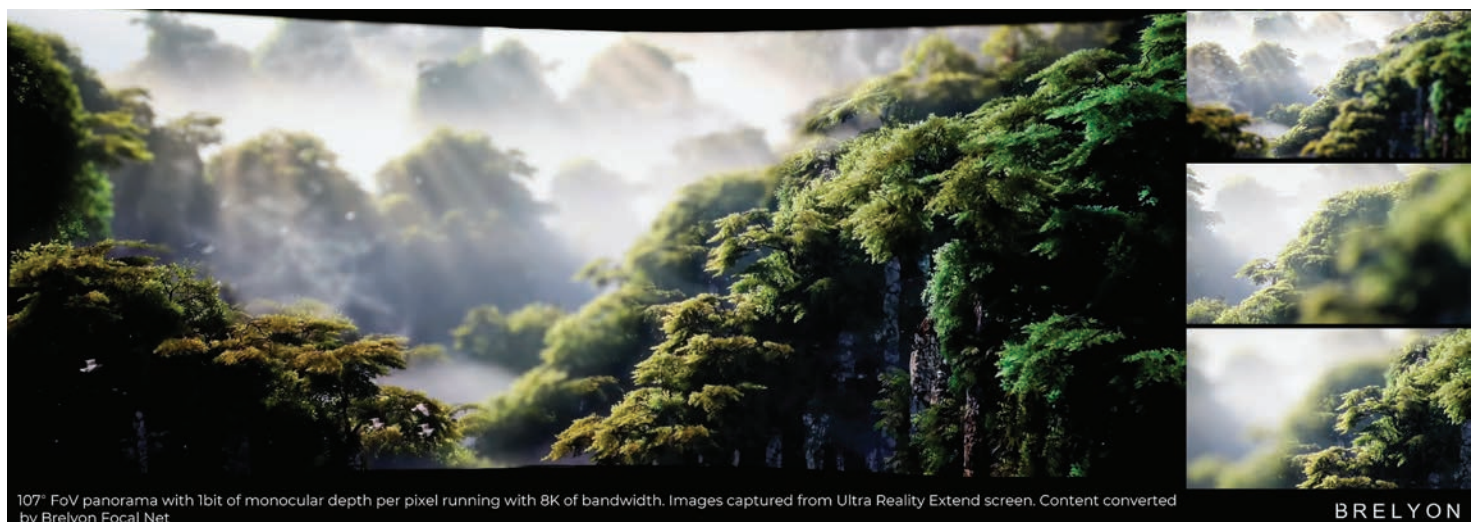
as often. The airline tested Brelyon's URE technology against the full flight simulator and found it fulfilled 95% of pilot training needs, much better than the previous solution the airline used, curved 2D displays.

Brelyon is already working with commercial airline and military customers on applications of the URE monitor for certain aspects of pilot training. However, it isn't yet suited for air combat maneuver training due to the need for more vertical field of view, which Brelyon is already working on improving.

"As a retired airline pilot, simulator instructor, and check airman, I wanted to keep my skills sharp and practice flying at home with a realistic, yet affordable, simulator," a pilot said in a testimonial. "My main challenge in looking at flight simulation was trying to get that feeling of being in an aircraft cockpit.

"VR headsets were isolating and not useful for providing instruction to my friends who wish to use the flight simulation programs. In contrast, the Brelyon display gives you a huge, clear picture that is easy to look at, while not taking up a lot of space in my home. The picture is sharp, and it looks very realistic."

"Our primary driver into the market has been as this headset alternative," Mehta said, "because it's a known pain point that we can readily address today." ■



Looking into a Brelyon immersive display gives the viewer the impression of looking at various sharply rendered depths and layers.

Fractional operations stay heated but face trade uncertainties

BY KERRY LYNCH

Fractional demand remains at a feverish pace with no signs of slowing for the foreseeable future, executives in the market segment agreed. However, political and trade uncertainties had a ripple effect on the sector's operations in the first quarter, and continue to create a small dip in trips to the U.S. from Canadian operator AirSprint, fractional executives told the recent JetNet iQ Summit in Washington, D.C.

AirSprint CEO James Elia, PlaneSense president and CEO George Antoniadis, and Airshare CEO John Owen participated on a panel at the JetNet annual event discussing their growing businesses and how they are keeping up with demand.

Asked if they saw any signs of a cooling off, Antoniadis' message was simple: "We are seeing no signs of a slowdown." In fact, reports from JetNet company WingX showed that by 2024, departures in the segment had jumped 61% from 2019, and Argus International data finds that year-over-year growth continues.

However, Owen noted that there was a drop-off at the beginning of the year. "We saw a huge slowdown in Q1. I think that was all centered around political and economic uncertainty. We all sat around [asking] 'What's going on?'" he said.

That changed by the second quarter, Owen added. "In April, it's like the switch flipped again and everything was back to normal. It was a scary first quarter, but since then it's back to normal, if not better."

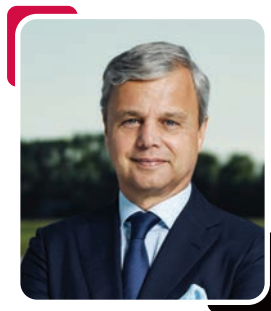
As for Calgary-based AirSprint, Elia noted, "I live in Canada, and there's a trade issue between our two countries. I'll say that we've seen a little bit of a slowdown."

He stressed that AirSprint is still seeing substantial demand. "But we're seeing a lot

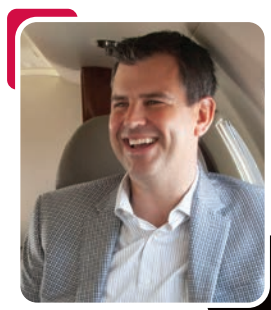
of hesitancy in the market," Elia continued. "It has dropped about 5% from what we would have expected, and growth is a little bit slower than what we would have expected because people are sitting on their hands and they don't know what to do."



JAMES ELIA
AIRSPRINT CEO



GEORGE ANTONIADIS
PLANESENSE PRESIDENT AND CEO



JOHN OWEN
AIRSHARE CEO

AIRSPRINT'S FRACTIONAL OPS

AirSprint, which introduced fractional ownership to Canada 25 years ago, is the only domestic provider in the segment in the northern country. It began with the Pilatus PC-12, and now counts among its fleet 40 jets: eight Embraer Praetor 500/600, eight Embraer Legacy 450/500, 18 Cessna Citation CJ3+, and six Citation CJ2+ aircraft. The fleet has an average age of about six years, Elia said, adding that with a luxury tax on new airplanes, AirSprint will look at the preowned market.

Established in Alberta, Canada, AirSprint faced skepticism given the geography of the country and regulatory requirements. "The key was to ensure that the operation minimized empty legs and to remain profitable," Elia said. "We never had any outside money behind us, and you had to be profitable from day one. We've been profitable every year of our existence, because we had to be."

The company began with the PC-12 flying in Western Canada. Over time, its operations expanded into the U.S., and that business accounted for 70% of its flights, Elia said. But he added that in light of the trade issues, those operations may now be down to 65%.

AIRSHARE EVOLVES

Airshare began operations 25 years ago with two turboprops and now has a managed fleet spanning nearly 140 aircraft and another 25 to 30 fractional aircraft. It has streamlined its fractional fleet in recent years down to the Embraer Phenom 300 and Bombardier Challenger 350/3500. But, at the same time, the fractional provider has spread from what had long been a Midwest company to more nationwide



Embraer's Praetor 500 is one of the 40 jets operated by fractional provider AirSprint.

operations. And it has substantially grown its managed fleet, giving it a balance that is not dependent on one product.

"We have gone through a lot of fleet iterations," Owen said. Airshare began with the Beechcraft King Air, and when he joined the company, it had a handful of types among its fleet of 30 aircraft. "That many fleet types is not the easiest operation to run nor the most efficient," he said, noting the company went through a simplification project based around the Phenoms with the Challengers added to open up national service.

Airshare has evolved over the years with the help of large investors who have maintained continuity at the company. It brought a Midwestern focus but has methodically expanded as data has pointed them in that direction.

PLANESENSE'S BIG BET

PlaneSense took a bet on the single-engine turboprop in the mid-1990s, Antoniadis said, but faced naysayers over the model. "We saw the airplane that was being built in Switzerland, and my feeling at the time was that we weren't going to compete with Citations against everybody else's Citations, and we were not going to compete with King Airs against everybody else's

King Airs," he said. "I had people say to me in the beginning: 'PlaneSense? No. PlaneNonsense.'"

However, pointing out that it was cost-efficient as well as environmentally efficient, Antoniadis added, "It turned out that the PC-12 was a very successful corporate aircraft with one engine." The company has grown the fleet to 74 and added the PC-24 jet. Included in the fleet are 46 PC-12s and 18 PC-24s. However, PlaneSense keeps a steady flow of orders because the company retires its aircraft relatively quickly, he explained. "Our

average age in our fleet is in the mid-four-year range."

More recently, PlaneSense eliminated fees to break down regional differences. While it has tremendous demand for the PC-12 in the Northeast U.S., it has also been successful in other parts of the country and now has a coast-to-coast program. The company has looked internationally but has opted to extend its reach through a partnership with Luxembourg-based JetFly, where its clients can book through each other for seamless travel. "Without having to start our own operation in Europe, we've created a partnership and vice versa... so expanding in intelligent ways that we can provide even more value to our clients," he said

Antoniadis credited the success of the model with the ability to enjoy the benefits of full ownership without having to own a whole airplane. "It's the most cost-effective manner to have the flexibility, the guaranteed availability, the known quality, the known entity without owning your own airplane," he said. "That I think is the fundamental platform that has made fractional ownership such a successful player in this space."

Fractional not only simplifies ownership, but costs, he maintained. "I believe that the fractional ownership is the lowest-cost



Airshare's Embraer Phenom 300s are a key element of its fractional-ownership fleet.

way to benefit equally as if you own that aircraft.”

For AirSprint, the segment helps connect a large country that only has about a handful of large markets for private aviation. “Unlike in the U.S., there are only a few tier-one airports that have tier-one charter service,” Elian said. “What fractional does with its guaranteed access and no positioning costs is it allows all the secondary- and third-tier airports to have a tier-one level of service at all those really small locations. It really makes a difference when all of a sudden you don’t have to pay for a charter flight to come one hour away, two hours away, and you have guaranteed access. You don’t have to worry about it.”

Covid created a push toward fractional operations because there was substantial demand but not enough charter supply, he said. “As soon as people could get a fraction, get that guaranteed access, they did.”

Owen agreed with Antoniadis that not everybody needs a whole aircraft, nor do they all want to buy charter. “This offers a perfect blend of both.”

He noted that while the three operations are similar in size, each has a unique position in the market. Airshare, he said, offers what he called a “database fractional program.”

Looking at the data, the company realized a notable percentage of flights headed to Florida, so it decided to sell there. The next hotspot moved the operation into the Northeast, later the mid-Atlantic to connect the Northeast with Florida, and ultimately the West.

“We thought we’d probably never be West with the size of the fleet that we had, and then through that same data, we realized that 8.2% of our flights were touching Scottsdale [Arizona] and Southern California and Las Vegas,” Owen said.

MANAGING THE GROWTH

As far as managing the growing business in the heated market, Antoniadis conceded, “It can be a nightmare. Unlike an



PlaneSense’s vertical integration keeps its Pilatus PC-12 and PC-24 fleet flying efficiently.

airline where one can plan the hotel rooms for their crews a year in advance, we have maybe half a day’s notice, so operational efficiency is king in our business.”

He stressed the importance of operational systems that work and perform, but he believes PlaneSense also manages through “absolute vertical integration.” The operation has brought in-house many of the key functions, including training, a large portion of maintenance, and fleet strategy.

“We do what we can control, and at least that’s an island of control within the insanity of the eight-hour notice,” Antoniadis said.

Elian agreed the business could be “complete chaos sometimes,” particularly around the holidays and high peak times. “The key to success around that is really planning for all your assets.” This includes planning how much backup capacity and how many pilots the company has, along with the placement of the pilots.

“There’s so much to it, even where are your clients located and what percentage of your clients are primarily using it for business and what percentage are primarily using it for pleasure,” he said, adding that this matters because different types of customers fly on different days.

“And not only that, but businesspeople are typically set on their schedule, but personal flyers sometimes have some flexibility. If you can use some of that flexibility to create a win-win, then you can manage your fleet really well. It’s tricky, and it took us a long time to figure it out.”

Owen added, “We all know...all it takes is one AOG to blow up the entire system, and so what we’ve done a lot of over the last several years is really invest in technology. We have dashboards all over the office. We have dashboards online, whether it’s deadhead percentage, on-time percentage, or aircraft availability. We monitor data like crazy.”

Airshare has fully integrated its entire technology system. Before, the flight management software stood separately from an optimizer and a customer app. This required a lot of manual communications and management. “The last several years, we’ve developed an entire ecosystem of technology that talks to each other, and it provides us with real-time data,” he said.

To ensure PlaneSense stays on top of the ebbs and flows, Antoniadis said the key is to observe the behavior and demands of the clients. “If we don’t fully understand and predict what our clients want, then there’s no space for us,” he said.

This includes tracking behavior and geographic patterns. “During Covid,” he said, “we all had the same experience. There was a precipitous drop for about a month, and then it showed up. What happened for a couple of years is clients were buying shares like crazy because they thought they would never be able to find any [capacity].” After that, PlaneSense saw a retreat from people who hoarded unnecessary capacity.

Things have since stabilized, “a very healthy demand is going on today.”

For AirSprint, Canada shut down for about 18 months, making running a fractional program challenging, Elian said. “And then overnight, the restrictions went away. And that was the worst 3 to 5 months of my 24 years at AirSprint,” he said. “Most of the charter [sector] couldn’t meet the capacity. There was all this revenge flying. There was so much demand.”

Since AirSprint was the only operator with guaranteed access, it found that 50% of its flights didn’t have the actual fractional owners on board. “It was their family, their friends, their coworkers, anybody who needed to go somewhere, call up their buddy and say, ‘You have a fraction of AirSprint? We need to go,’” Elian said.

At the time, the operator had a fleet of 20 and was grappling with the same supply-chain issues as everyone else. “In November of 2021, on average, I had six of my 20 airplanes down waiting for parts. And my demand was 31 airplanes worth. So, the challenge associated with that was frankly crazy,” he said.

The company ended up buying four more aircraft, one of which was “just a parts machine until we could get parts.”

Today, Elian continued, the Canadian private jet environment is 45% bigger than in 2019. AirSprint has 6% of the fleet in

Canada but absorbed 50% of the growth, he said.

Owen said that because Airshare ran its entire business off data, it has managed to have an off-fleet charter percentage of less than 2%. He noted that he was in continual communication with Elian, and they shared a lot of information.

The company also hired an executive with a background at Ritz-Carlton to focus on customer experience, noting that, as a service provider, this is what matters in the end.

As for the Covid experience, he stressed, “I think we all did the right thing—we just stopped selling. We realized we weren’t all of a sudden very good at fulfilling demand that was coming in at a rapid pace, and decided we’re done. Let’s take care of customers, and once that subsides, which took about a year, let’s start building back up.” ■

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Luminair Off To Fast Start with Falcons, Citations

German air charter start-up Luminair has quickly launched operations this year on a mission to differentiate itself in a crowded market with a combination of high fleet utilization and service standards. On September 29, the Hamburg-based group took delivery of the first of three new Dassault Falcon 900LX aircraft as it seeks to build its fleet to around 40 jets.

The company was founded by a quartet of former executives from charter operator Air Hamburg, which in 2022 was acquired by the Vista Global group. Backed by private investors, the team believes it can offer a compelling alternative to fractional ownership and block charter offerings.

Handed over during an event at Paris Le Bourget Airport (S/N 336), the Falcon 900LX entered service in the first few days of October, joining a fleet that already includes a preowned 2023 Falcon 900LX, and two more new examples of this type are set to be completed at Dassault's Little Rock, Arkansas facility before year-end. Luminair also operates three Cessna Citation XLSs and is preparing to add two more of these midsize twinjets.

The trio of Citations has already logged 1,300 flight hours to 192 destinations, and Luminair aspires to achieve upwards of 1,000 hours annually with each aircraft. Thanks to a busy European summer season, the XLSs have logged almost another 700 flight hours since the Paris Air Show in June, when the deal with Dassault was announced. In the first half of the year, the midsize jets had logged 957 hours on trips to 168 destinations, with the company focused on working almost exclusively with charter brokers as opposed to booking trips directly with passengers.

According to Luminair co-founder Algeron Trotter, the XLSs operate a 70/30 ratio between passenger-carrying and ferry



The German charter start-up intends to operate a fleet of about 40 jets.

flights, and he believes the company can achieve an 80/20 ratio with the Falcons. The company was jointly founded in January with CEO David Bergold, chief operations officer Alexander Stevens, and chief experience officer Julia Müller.

Filling a Charter Range Gap

Luminair selected the 900LX because its 4,750-nm range fills a gap in the market between the 4,000-nm Bombardier Challenger 605 and 6,000-nm Global Express. The Falcons will expand the scope of operations into Asia, building on demand for flights to and from the Middle East and across the Atlantic.

"The 900LX has the perfect range and fuel consumption for long-range missions," Trotter told *AIN*. "For example, we can take eight passengers from Dubai to London, even with airspace closures and strong headwinds en route."

Another factor drawing Luminair to Dassault was that it opted not to acquire aircraft already in service with leading charter groups such as VistaJet, Flexjet, and AirX. Trotter said it would not be viable to offer the same aircraft options as larger rivals,

and brokers can use more diverse options.

"With the acquisition of these aircraft, Luminair will have the youngest and most modern fleet of Falcon 900LX aircraft in the world," Trotter commented.

Flight Crew Continuity

Flight crews stay with an aircraft for five to seven days at a time to make the most of permitted duty times. Luminair's 81-person payroll, which has grown from 11 since January, mainly consists of pilots who train at CAE.

According to Müller, social media is proving to be an effective recruitment platform for crew, with their availability being the main limitation on aircraft utilization. The company is competing with airlines for new hires, with Stevens noting that rates of pilot retirement are shifting and, at the same time, training centers are "not as full as they used to be."

As for the Falcon: "On our recent delivery flight, I was struck by how exceptionally quiet the cabin is," Müller said. "The spacious, refined interior and smooth flight characteristics will resonate with clients. Our experienced crew has invested months in fine-tuning onboard service that will be sure to win over passengers and brokers." **C.A.**



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Signature Reopens Updated North Carolina FBO

After a two-year reconstruction project, Signature Aviation unveiled its renovated FBO at Smith Reynolds Airport (KINT) in Winston-Salem, North Carolina. The aviation services provider occupies nearly 3,000 sq ft in the airport's terminal, which dates to 1941. It features a spacious crew lounge with snooze rooms, business center, expanded refreshment bar, and an outdoor seating area on the second floor. The main lobby highlights a replica of the Savoia Marchetti S-56 that airport namesake Zachary Smith Reynolds used during his 17,000-mile global circumnavigation in 1931.

Dallas Love Field FBO Adding More Hangars

Business Jet, one of five FBO services providers at Dallas Love Field (KDAL), is constructing two more hangars at its facility. Totalling nearly 70,000 sq ft, the side-by-side hangars with 28-foot-high doors will be able to accommodate the latest ultra-long-range jets. One will be home to a single flight department tenant in a customized space, while the other will house multiple aircraft along with individual offices and shop space.

They will feature epoxy-coated floors, LED lighting, large-format ceiling fans, radiant tube heating, electric vehicle charging stations, and integrated utility pedestals providing electricity, water, and compressed air. When completed by January, they will bring the FBO to 475,000 sq ft of hangar and office space.

FBO Operator Takes Over Terminal at Mississippi Airport

Skyport Aviation has taken over the operation of the former commercial aviation terminal at Mississippi's Hawkins Field Airport (KHKS), near Jackson. The company purchased the former Hawkins Jet Center—the lone service provider on the field—late last year and had been operating from its 2,500-sq-ft terminal, which is attached to a maintenance hangar.

With this latest move—in partnership with Jackson Municipal Airport Authority—Skyport has moved its FBO operation into the 5,100-sq-ft airport terminal, which it will share with tenant PHI.

The complex has more than 100,000 sq ft of hangar space that can accommodate light jets and turboprops. Skyport v-p Andy Ochalek told **AIN** the company plans to invest several million dollars into the facility over the next few years for the construction of more hangars to handle ultra-long-range business jets and remodeling the terminal.

Second FBO Lands at Delhi International Airport

Indamer MJets opened an FBO at New Delhi Indira Gandhi International Airport (VIDP), becoming the second aircraft services provider there. The \$20 million facility is a joint venture between Indamer Aviation and MJets Thailand, combining regional expertise with international service standards.

The complex features two 32,000-sq-ft hangars and a dedicated general aviation terminal with luxury lounges, business center, crew lounge, and integrated customs and immigration facilities.

Jet Access Starts 2nd Nashville-area Location

Aviation services provider Jet Access has broken ground on a private hangar complex at John C. Tune Airport (KJWN) in Nashville, Tennessee, with completion expected by year-end. The facility will be the company's second in the Nashville area, joining its FBO at Music City Executive Airport (KXNX) in Gallatin.

The complex will include a 3,000-sq-ft terminal with executive lounge, private offices, conference room, and refreshment bar, along with an adjoining 22,000-sq-ft hangar capable of housing ultra-long-range business jets.





Pensacola Aviation Center Weathers Storm Surprises

With its location on Florida's panhandle, Pensacola Aviation Center—which has been in operation for nearly half a century at Pensacola International Airport (KPNS)—is certainly no stranger to dealing with unusual weather. But, when it came to the first recorded blizzard to hit the Gulf Coast region back in January, there was no frame of reference. “That was unprecedented, to say the least,” said Chris Adamson, the FBO's operations manager. “We've gotten snow here before, but it's only been 1 or 2 inches. We ended up with 8 and a half inches, and that caught everybody by surprise.” That surprise marked the largest single-day snowfall ever recorded in the state, breaking records that had stood for nearly a century.

KPNS was shut down on January 20, and Adamson sent his staff home while he spent the night at the FBO terminal, bunking down in the pilot lounge. He awoke to a winter wonderland, with snow drifts juxtaposed against palm trees. The sun came out that day to provide natural snow melting; snowplows were such a novelty in the state that the city of Pensacola had to contract with a Georgia municipality for some plow-equipped pickup trucks to clear its streets. To grind up the ice that was continually forming on the ramp in the cold temperatures, Adamson and those staffers who were able to reach the airport drove the facility's heavy equipment around all day. “If they had allowed me to build a fire out there, I'd have done that,” quipped Adamson. The work paid off as the ramp was clear when the airport reopened the next morning after the two-day interruption.

One of two service providers at KPNS, Pensacola Aviation has a 5,500-sq-ft terminal that was built in 2000. It features a pilot



In business for 48 years, this FBO has seen it all, including a Florida blizzard.

lounge with snooze room, shower facilities, business center, two conference rooms seating 10 and 15 respectively, a flight planning area, and crew cars. Rental cars can be delivered to the FBO. The refreshment bar offers a variety of beverages, including coffee, Gatorade, Yoo-Hoo, and—for those whose flying is done for the day—beer. A freezer contains ice cream along with frozen pizzas, which can be baked in a small oven in the lobby for anyone who wants to grab a quick snack.

The complex has nearly 50,000 sq ft of community hangar space that can accommodate up to midsize business jets, plus 43 T-hangars that can each shelter a small single-engine turboprop.

Pensacola Aviation, which has a staff of 20, is open 24/7, with those late-night hours seeing numerous aeromedical flights. An Avfuel-branded dealer, it pumps more than a million gallons of jet-A and 250,000 gallons of avgas annually from its fuel farm, which holds 30,000 gallons of jet fuel and half that amount of 100LL. It is served by one 5,000-gallon and two 3,000-gallon jet refuelers and two 1,000-gallon avgas trucks operated by the location's NATA Safety

1st-trained line service technicians.

While KPNS has “international” in its name, that only applies to private aviation arrivals and departures. The U.S. Customs and Border Protection facility is located on Pensacola Aviation's ramp, with customs agents available with 24 hours' notice.

The FBO's traffic reaches a peak in summer, with vacationers drawn to the area's beaches, and quiets down in the fall for a “much-needed break,” Adamson told *AIN*, before ramping up again for the holidays and the arrival of the snowbirds from the Northeast.

A \$2 million resurfacing project on the nearly 10-acre ramp is underway, and the FBO's owners are in negotiations with the city on a lease extension. That would trigger several additional improvements, including the erection of another 20,000-sq-ft hangar, the components of which are already onsite.

Renovations are on tap for the terminal as well, with an expansion of the lobby outwards and upwards to facilitate the installation of a mezzanine observation deck overlooking the ramp, a new customer service representative counter, and more office space.

C.E.



Sherpa Air Becomes Garmin Service, Install Center

Georgetown, South Carolina-based Sherpa Air has been named a Garmin authorized service and installation center for its full line of avionics products.

The Garmin avionics that Sherpa Air can install include integrated flight decks, GPS navigators, ADS-B solutions, and advanced cockpit systems. Sherpa Air's customers are located along the U.S. East Coast, and the Garmin approval expands the company's avionics expertise.

Yingling Debuts Maintenance Apprenticeship Program

Yingling Aviation has rolled out an Airframe & Powerplant mechanic apprenticeship program as it continues to expand and eyes long-term growth of the aviation industry. The MRO celebrated the debut of the program at its facilities in Wichita with a ceremony that included its inaugural class, Yingling staff, aviation influencers, and government officials.

The nearly 80-year-old company has been hiring workers amid a period of rapid growth with additional hangars, aircraft capabilities, and services. The apprenticeship is providing hands-on training and mentorship to further the MRO's goals of prioritizing education and the success of the next generation of mechanics, the company said.

Duncan Debuts Battery Shop in Scottsdale, Arizona

Duncan Aviation has added a full-service battery shop to its satellite repair facility at Scottsdale Airport (KSDL) in Arizona.

With the ability to provide main-ship and emergency battery maintenance services on units from top manufacturers including Aero Design, Concorde, Saft, Marathon, Securaplane, and L3 Harris, the location has separate rooms for testing and working on different battery types including absorbed glass-mat, Nickel-cadmium, and NZ batteries such as those contained in the Honeywell

NZ-2000 and IAC-600/800 Nav and IAC computers.

Among the services offered are battery replacements and restorations, 100-hour inspections, deep cycle and capacity checks, battery re-blocks and bench tests, and new unit sales.

ASI Adds Ultrasonic Testing and New Product Lines

Aircraft Specialties Inc. (ASI) has introduced ultrasonic testing to its non-destructive testing (NDT) capabilities. An FAA-approved Part 145 repair station, ASI is based in Omaha, Nebraska, and specializes in repair, overhaul, and exchange of wheels and brakes, NDT services, machining, and advanced cold spray repair techniques. It also distributes specialty aviation products and parts made using the parts manufacturer approval (PMA) process.

The ultrasonic NDT "uses high-frequency sound waves to detect internal flaws, cracks, or material inconsistencies in aircraft components without causing damage." This complies with component maintenance manual standards.

Now available from ASI are PM Research FAA-PMA-approved radome boots, leading-edge tape, and protection kits "designed to shield aircraft from erosion caused by environmental elements, reducing costly repairs, and extending component life," according to ASI.

Leonardo Opens MRO Center at Whiting Aviation Park

To support U.S. Navy TH-73A training helicopters and civil rotorcraft, Leonardo has opened a support center at Whiting Aviation Park near Milton, Florida. The facility is adjacent to Naval Air Station Whiting Field and is part of Leonardo's \$65 million investment in military aviation support, civil services, and regional aerospace growth, according to the company.

In addition to supporting the TH-73A fleet, Leonardo is offering customer support for civilian operators of its helicopters in the southeastern U.S.





AMAC Invests in Self-sufficiency To Support the World's VIP Jets

At first glance, the busy ramp outside AMAC Aerospace's primary maintenance, repair, and overhaul (MRO) facility has the look of a United Nations meeting. The apron and the five large hangars at EuroAirport near the Swiss city of Basel are habitually packed with 40 or more head-of-state and government airliners flown in for a mix of heavy checks and refurbishment work.

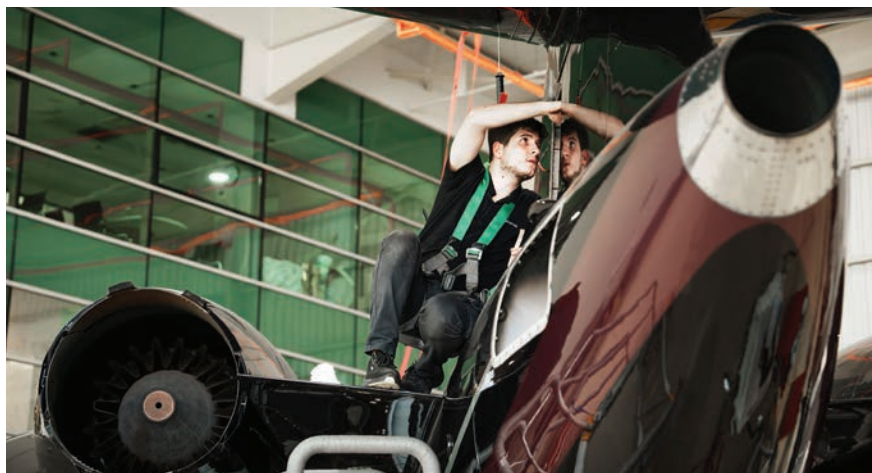
Since its founding in 2007, the privately owned group has specialized in supporting larger VIP jets, with a strong client base across the Middle East, Asia, and Africa. Aircraft bearing the flags of prominent Gulf states and monarchies, as well as those owned by governments of countries great and small, are common sights at the AMAC headquarters, alongside jets owned by a variety of charter and corporate operators.

In addition to the Basel site, which is actually in France, AMAC also has MRO facilities in the Turkish cities Istanbul and Bodrum. The group has a sales office in the Saudi Arabian capital Riyadh.

AMAC has invested heavily to ensure it covers most of the core MRO tasks. Specialist shops on site include composites, wiring, cabinetry, wood, and painting. These skills are supplemented by the a French subsidiary, JCB Aero.

AMAC has recruited specialists from multiple countries and works with the university in nearby Mulhouse, France, to source training in engineering and avionics. English is the working language at the Basel site, with tuition provided by a teacher from the UK.

For logistics operations, including moving technicians to support AOG situations, the company operates its own Pilatus PC-24 and PC-12 aircraft and is an official service center for the Swiss manufacturer. It holds multiple MRO approvals from global regulators and is proud to have been one of the first non-U.S.



AMAC Aerospace employs multiple MRO specialists at its facilities.

service providers to secure foreign repair station approval from the FAA.

In recent months, AMAC has reported a flurry of MRO activity in the corporate and VIP market. On September 26, it redelivered a Boeing 737 to its operator after completing 1A, 2A, and 4A checks. In the same week, engineers performed an engine change on a Dassault Falcon 2000EX.

Other recently completed projects include 12-year inspections on a pair of Airbus ACJ319 aircraft. Work on the two Singapore-based aircraft also included an upgrade to the in-flight entertainment systems, refurbishment of the divans and carpet, and an exterior paint job.

AMAC's Basel team has conducted a 72-month inspection on a Gulfstream aircraft based in the Asia-Pacific region. It delivered three aircraft back to operators in Asia, which included another ACJ, a Boeing Business Jet, and a G450 from South Korea.

More MRO Capacity in Turkey

The company's facility at Bodrum splits its MRO capacity between VIP and business aircraft during the summer months and commercial airliner support in the winter. It recently completed a 12-year inspection for

a Boeing Business Jet (BBJ) in a project that included the installation of an all-new cabin interior and the addition of an auxiliary fuel tank in the center section of the fuselage. Before the end of September, the company expects to finish a 12-year inspection on another BBJ.

At Istanbul's Atatürk Airport, AMAC operates another MRO facility. This specializes in supporting Pilatus PC-12 and PC-24 aircraft, as well as Dassault Falcon jets, with recent jobs including engine repairs on a Falcon 900EX EASy, decontaminating the fuel system on a Falcon 7X, and defect rectification and inspections on a Falcon 2000EX EASy.

The Istanbul facility is in the process of completing a C inspection for a Falcon 2000, which is also receiving an extensive cabin makeover and a new exterior paint. A trio of heavy maintenance checks on Falcons conducted by AMAC's Turkish engineers this year included recarpeting a 900EX EASy model with JCB Aero support.

Since October 2024, JCB Aero has expanded its MRO capability. It recently acquired Kreative Engineering Services to increase its capabilities, which include 3D printing and a four-axis CNC machine. C.A.

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

Few Initial Clues to Air Ambulance Destruction

Beechcraft King Air 300,
Aug. 5, 2025, Chinle, Arizona

The NTSB's preliminary report provided little obvious insight into the air ambulance's crash on approach to Chinle Municipal Airport, which killed all four crew members. The aircraft departed on a positioning flight from the Albuquerque, New Mexico International Sunport (KABQ) at 11:55 local time, climbed to a cruising altitude of 18,000 feet, and initiated a descent at 12:29. Ten minutes later, it entered the airport traffic pattern on a downwind leg for Runway 36. In the last ADS-B data point, the airplane was about 600 feet agl on a 2.8-mile final approach.

A witness, a quarter mile from the airport, saw the King Air flying northbound about 180 feet over the runway. The left wing dipped erratically several times, then stabilized; then the airplane pitched up, the left wing dropped, and it crashed in "a knife-edge attitude" about 990 feet west of the runway, igniting a post-accident fire. The cockpit voice recorder was subsequently recovered and sent to the NTSB Vehicle Recorder Lab.

Prevailing weather at the nearest reporting station, some 37 nm away, showed clear skies, a temperature of 32 Celsius, an altimeter setting of 30.38 mm Hg, and westerly winds of 14 knots gusting to 28.

G-V Damaged by Uncommanded Gear Retraction

Gulfstream Aerospace G-V,
Sept. 2, 2025, Portland, Oregon

The airplane's forward pressure bulkhead sustained substantial damage when the nose gear retracted with the jet still on the ground at the Portland International

Airport (KPDX). Two pilots and one passenger were on board for a Part 91 personal flight. After starting the number two engine, the pilot observed a low indication on the hydraulic oil pressure gauge and activated the power transfer unit (PTU). As soon as the PTU was engaged, the nose gear retracted, and the forward fuselage struck the ground. The flight crew performed an emergency engine shutdown, and all three occupants evacuated without injury through the rear baggage door.

Final Reports

Citation Descended Below Minimums Before CFIT

Cessna Citation II, July 8, 2023,
Murrieta, California

The NTSB concluded that the pilot of a Cessna Citation II that crashed near French Valley Airport (F70) descended below the decision altitude without the required visual cues, causing a controlled flight into terrain accident that killed all six aboard.

French Valley Airport did not have a control tower, and although a cockpit voice recorder (CVR) was on board, "the CVR did not contain data from the accident flight and none of the recovered audio was pertinent to the investigation."

According to the report, the Citation had departed French Valley the previous evening and landed at Las Vegas Harry Reid International Airport (KLAS) before departing on the return flight to F70 about six hours later.

Twenty-seven minutes into the flight, the pilot began a descent to French Valley as weather deteriorated. Within minutes, visibility decreased from 10 statute miles to a 300-foot overcast with three-quarters of a mile visibility, and then to one-half

mile visibility in fog. At 3:44 a.m., the pilot requested IFR cancellation. The controller acknowledged and advised he had no weather information for F70. "The pilot responded and advised that he had the weather and landing information for F70," the report states. About 3:51 a.m., approximately 25 miles north of F70, the pilot reported updated weather and requested an IFR pickup for the RNAV (GPS) Runway 18 approach.

The report noted that "a search of archived information indicated that the accident pilot did not request weather information from Leidos Flight Service. The pilot did have an account through Foreflight and filed a flight plan, but no weather imagery was viewed in Foreflight."

Two instrument approaches to Runway 18 were attempted. During the first, the airplane leveled off near the decision altitude for several seconds before a missed approach was initiated. A Mode 4 "too-low gear" alert was triggered during the missed approach. Cleared for a second approach, the jet again descended below the required minimums. About 810 feet short of the runway threshold, the airplane struck terrain.

The final ADS-B return showed the aircraft flying at 128 knots groundspeed and about 100 feet agl. In the last three seconds of recorded data, its descent rate increased sharply to about 2,320 feet per minute. Investigators found no mechanical anomalies that would have prevented normal operation. The aircraft was configured gear down, flaps fully extended, and all major components were found at the accident site. Lighting systems at F70, including the runway PAPI, REILs, and pilot-controlled lighting, were found operational during post-accident inspection.

The NTSB cited the crew's decision to descend without "the appropriate runway visual reference(s)" and below the

minimum visibility required for the instrument approach as the probable cause. Contributing factors included crew fatigue during the circadian low window and reduced situational awareness.

Unexplained Engine Overheat Triggered Fatal In-flight Fire

Eurocopter EC135T1, Aug. 28, 2023,
Pompano Beach, Florida

Runaway overheating of the No. 1 engine ignited a fire outside the engine compartment firewall, causing a partial separation of the tailboom that left the helicopter uncontrollable. One paramedic on board and a resident sleeping in the building were killed when the medical helicopter crashed onto the roof of an apartment complex, seriously injuring the second paramedic and causing minor injuries to the pilot. Investigators could not determine the cause of the excessive engine temperature.

Data recorded by the ship's electronics showed that 67 seconds after departing for the scene of an automobile accident, the No. 1 engine control unit recorded a double N1 and double N2 failure. While this should have triggered a "FADEC FAIL" cockpit caution, the pilot did not recall seeing or hearing alerts. The ECU failure froze the fuel control unit at its flow rate of 123 l/h, preventing the throttle control from being moved to idle and reducing fuel flow.

Ninety seconds into the flight at an altitude of 300 to 400 feet agl, the pilot heard a bang and saw the turbine outlet temperature (TOT) of the number one engine rising. He moved the throttle to idle, declared an emergency, and reversed course to return to the Pompano Beach Airpark (KPMP). The No. 1 engine fire button illuminated, and the TOT continued to rise past its 895 °C limit to reach about 1,000 °C. A second bang was heard about 90 seconds after the first and the pilot lost control.

Witness video showed a fire in the vicinity of the No. 1 exhaust and the air conditioner condenser fans. Examination of the engine showed that five turbine blades

had fractured in temperatures in excess of 1,295° C. Neither the composite material of the tailboom nor the fiberglass housing of the air conditioner was certified to withstand 1,000° C temperatures. The air conditioner had been installed under a supplemental type certificate 27 days and 16 flight hours earlier.

Plausible causes of the overheating included blockage of the engine air inlet or ingestion of foreign object debris, hot gases, or combustible fluids. Fire damage to the engine made it impossible to determine the exact cause.

Tail Rotor Destroyed by Mystery Object

Airbus Helicopters BK117 C-2 (EC145),
Nov. 23, 2024, Montanel, France

During a confined area landing to conduct a medical evacuation, the helicopter's tail rotor apparently struck a solid object, destroying both blades and shearing the bolts and rivets that had secured the first two segments of the tail rotor drive shaft. There was no damage to either of the vertical stabilizers or the tail guard. The manufacturer characterized the damage as "similar to that usually observed during accidents in which the tail rotor has struck hard objects such as a rock," but no sign of impact was found on the stone wall or series of 1.8-meter (6-foot) stone pillars separating the landing site from a parking lot, and no vegetation marks were found on the fragments of the blades. The helicopter also sustained deformation of the landing skid cradle and tailboom, possible deformation of the airframe, and contact between the main rotor blades and upper cable cutter due to excessive downward flapping during the hard landing.

The helicopter was dispatched to the scene of a motor vehicle accident at Montanel. To avoid possible hazards on unpaved ground, the pilot chose to land on a road bordering a cemetery parking lot. After performing site reconnaissance at 500 feet, he

approached the landing zone into the wind, descended into a low hover, and began a left pedal turn to position the craft for a slope landing. About 90 degrees into the turn, the aircraft suddenly spun right, and the pilot immediately lowered collective in response to the loss of yaw control. The helicopter touched down hard and skidded another 40 degrees before coming to rest. The pilot retarded both engines to idle and performed a normal shutdown.

In its report, the BEA observed that "No element observed...that could have formed a fixed obstacle showed damage that could be attributed to a strike by a tail rotor blade turning at a high speed (around 2,170 rpm," leading them to conjecture that the "obstacle or hard object ... may have been ejected."

Quartering Tailwind Cited in Runway Excursion

Pilatus PC-12, May 17, 2025,
Las Vegas, Nevada

The NTSB attributed the probable cause of a Pilatus PC-12 runway excursion at Las Vegas Henderson Executive Airport (KHND) to the "pilot's failure to maintain directional control while landing with a quartering tailwind." The 2006 turboprop single was being operated under Part 91 by public charter provider Boutique Air.

The accident occurred during a night landing on Runway 17R in visual meteorological conditions. The airport's automated weather station reported winds from 240 degrees at 13 knots, gusting to 20 knots. The sole-occupant pilot later stated that "winds seem to have shifted with a quartering tailwind at some point."

According to the report, the airplane veered right after touchdown as the pilot moved the power control lever into reverse. He applied left rudder, but the aircraft veered sharply right one to three seconds later. It departed the right side of the runway, traversed gravel between the runway and taxiway, and struck a storm trench, substantially damaging the right wing. ■

BY GORDON GILBERT

JUST AROUND THE CORNER

Dec. 11, 2025

U.S.: Advanced Air Mobility Partnership Program

The FAA is requesting proposals from state and local governments and the private sector to partner with the agency in its planned establishment of an electric vertical takeoff and landing (eVTOL) and advanced air mobility (AAM) integration pilot program. The agency said it welcomes comments from organizations with “demonstrated experience in eVTOL or other AAM development, manufacturing, and operations, or new supporting technologies enabling AAM operations integration into the national airspace system.” Interested entities must submit proposals to participate in the partnership program by Dec. 11, 2025.

Nov. 3, 2025

U.S.: Falsified Information Rules

The FAA is amending, restructuring, and consolidating falsification regulations to eliminate inconsistencies and combine all the rules and sanctions into a new FAR Part 3, Subpart D. The FAA and other stakeholders rely on complete and accurate information in safety-related records. Indeed, the agency and other stakeholders make critical safety-related decisions based on this information and rely necessarily on the veracity of that information. This final regulation is based on the comments received to a notice of proposed rulemaking published on Feb. 8, 2024. It provided background on the types of conduct proscribed under the prior falsification regulations. In addition, the notice identified the regulations that contained a sanction provision for falsification. The final rule is effective Nov. 3, 2025.

Nov. 15, 2025

U.S.: Drug/Alcohol Testing—Gender vs Sex

Based on an executive order from the president of the U.S., this proposal would replace the word “gender” with “sex” throughout the DOT’s drug and alcohol testing regulations. “‘Sex’ shall refer to an individual’s immutable biological classification as either male or female,” said the

executive order. “‘Sex’ is not a synonym for and does not include the concept of ‘gender identity.’” The DOT proposal also continues its previously-published proposal to require a directly observed urine collection in situations where oral fluid tests are currently required, because oral fluid testing is not yet available. Comments are due by Nov. 15, 2025.

Nov. 21, 2025

Europe: VTOL Aircraft Noise

EASA has issued proposed rules to establish “detailed noise requirements” for vertical takeoff and landing aircraft (VCA). These regulations are intended to: ensure that new VCA are designed to minimize noise; enable a level playing field for manufacturers; provide certified noise levels for reference to European Union (EU) member authorities responsible for land-use planning and for granting VCA operational authorizations; and maintain a high level of environmental protection in Europe. Although the EU has recently adopted regulations to provide a regulatory framework for safety, airworthiness, and operation of innovative air mobility, such as VCA and other types of unmanned aircraft systems, these regulations do not relate to environmental protection issues such as noise. Comments on the proposal are due by Nov. 21, 2025.

Nov. 27, 2025

International: Recommended Standards from ICAO

ICAO has restructured several annexes with updated recommended standards. On Nov. 27, 2025, these become applicable for certain communication, navigation, airport, and heliport operations and aeronautical meteorological services. New standards introduce advanced satellite navigation monitoring and security and reliability of aviation communications with enhanced cyber-resilient standards for air-ground data exchange.

Dec. 31, 2025

Europe: Halon Phaseout Is Imminent

The multi-year replacement phaseout schedule of Halon as a fire extinguishing agent in aircraft continues this year. Per Annex V of Regulation (EU) 2024/590, the final important deadline for Halon replacement in portable extinguishers used for protecting cabins and crew compartments is Dec. 31, 2025. Halon 1211, 1301, and 2402 are considered ozone-depleting substances, and their production in EU member states and other countries has been banned under the Montreal Protocol since 1994. However, they remain in the EU market under exemptions for certain “critical uses,” including on some aircraft systems designed to quell cargo compartment fires.

Dec. 31, 2025

Europe/U.S.: Maintenance SMS Compliance

U.S.-based FAA Part 145 holders that also have or want to apply for EASA Part 145 certification must establish an FAA/EASA-approved SMS. Operators unable to meet the original compliance deadline of Oct. 10, 2025, will have an additional two months to comply if there is a declaration included in their supplemental documents stating that they will be in compliance with all SMS requirements no later than Dec. 31, 2025.

Jan. 1, 2026

Netherlands: Eindhoven To Ban Private Aircraft

Starting on Jan. 1, 2026, fossil-fuel private aircraft operations will be banned from operating at Eindhoven Airport. "As private flights have a relatively large noise and CO2 footprint per passenger and only marginally meet our region's mobility needs, we have decided not to allow them at Eindhoven Airport from 2026," according to a statement from airport authorities. "If opportunities arise for sustainable small-plane aviation (such as electric flying) that adds value to the region, we would want to facilitate that."

Jan. 1, 2026

Singapore: No-Boarding Directive

Singapore will introduce a No-Boarding Directive (NBD) early in 2026, applicable to all inbound commercial and private flights. The aim of the NBD is to deny boarding to "travelers deemed high-risk or otherwise undesirable before they arrive at immigration checkpoints." Essentially, the NBD will be integrated into the APIS. When NBD is active, operators will receive either an "OK to board" or "Do Not Board" response for each person on the flight. It will be considered an "offense" by Singapore to depart for the country carrying anyone who receives the NBD designation.

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



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BY JESSICA REED



ANTHONY NOREJKO

Anthony Norejko is transitioning out of his role as CEO of the *Canadian Business Aviation Association* as part of a planned leadership succession process. Norejko has served as CEO for seven years, leading the association through significant challenges and growth, including navigating the Covid pandemic's impact on the aviation sector, federal election cycles, the implementation of luxury tax legislation, and ongoing advocacy efforts regarding airport access and infrastructure issues.

Christian Certa joined *Invicta Finance*, involved in private aircraft lending and yacht finance, as head of sales and originations. Certa previously held senior sales positions in aircraft and yacht financing at Credit Suisse/UBS with more than two decades in that sector.

Former New Hampshire Gov. **Chris Sununu** became president and CEO of *Airlines for America* (A4A) effective September 9. Nick Calio stepped down after 15 years in that role.

Richard Gort was named COO of sustainable aviation fuel producer and distributor *SkyNRG*. Gort's most recent role was director of customer connections and capacity for European transmission system operator TenneT.

Wheels Up made three new hires under the leadership of recently appointed chief sales officer Mark Briffa. **Tanya Weed**, previously senior v-p of sales at VistaJet, joined *Wheels Up* as director of new business. **Maris Kuklis** was appointed business development manager for *Wheels Up* company Air Partner and brings experience working for JetBlue Airways. Meanwhile, **Luigi Contessi** joined Air Partner as regional business development director and brings more than three decades of executive experience in the aviation industry.



MARIS KUKLIS

Western Aircraft recently made several appointments and promotions. **David Harsay**, who has worked at Dassault Falcon Jet for 12 years, was named Western's regional sales manager in support of the MRO sales and marketing team. **Brock Marshall** came on board as regional

sales manager for Pilatus PC-12s and Beechcraft King Airs and brings more than two decades of aviation maintenance and operations experience. Western promoted regional sales manager **Shannon Edick** to maintenance program coordinator for Pilatus PC-24 and Piper aircraft; she has been with the company since 2015. **Matthew Rainier** was promoted from assistant chief inspector to Gulfstream service manager; he has specialized in Gulfstream aircraft for a decade. **Chris Duncan** was hired as Western's interior modification manager, bringing 17 years of industry experience. Additionally, **Kindra Mahler** joined as marketing manager for its aircraft sales/management and charter divisions. Mahler previously worked to advance marketing initiatives and operational insights at Fargo Jet Center in North Dakota.



KINDRA MAHLER

JetAviva hired **Michael Barber** as managing director and v-p of sales operations, specializing in super-midsize aircraft and supporting the company's ongoing expansion into large-cabin aircraft. Barber was previously regional v-p of sales and acquisitions for an IADA-accredited dealer and Argus Platinum-rated firm. At the same time, **Ben Dow** was promoted to v-p of sales for JetAviva. Dow has several years of aircraft sales experience and will continue to be a market expert for Falcons and large-cabin aircraft.



BEN DOW

The *Metropolitan Airports Commission* promoted **Mark Rudolph** to assistant director of field maintenance. In his new role, he will oversee FAA airfield maintenance compliance requirements at Minneapolis-St. Paul International Airport. Rudolph had served as manager of field maintenance and planning at the airport for the past eight years.

Jon Najarian joined the advisory board of *Mzi Global*, which announced an agreement in June to merge with Volato Group. Najarian, a professional investor, money manager, and media analyst, founded Mercury Trading in 1990

and co-founded OptionMonster and TradeMonster in 2005.

Ametek MRO named **Adam Payne** business development director for Europe. Payne most recently worked at Ontic as senior sales manager and was previously at GE Aerospace for 14 years.

Candace Covington, senior director of aviation at Adobe, joined the *Air Charter Safety Foundation's* board of directors. Covington formerly worked for Qualcomm as chief pilot and senior director of aviation.



MOHAMMED
BIN MAHFOODH
ALARDHI

Mohammed Bin Mahfoodh Alardhi, executive chairman of Investcorp, was appointed chairman of *RoyalJet's* board of directors. Alardhi, formerly the youngest and longest-serving chief of the Oman Air Force, is also chairman of the Muscat Stock Exchange.

KCAC Aviation hired **Preston Estes** as director of maintenance. His most recent role was v-p of service at Skytech, and his experience in aviation maintenance spans more than 30 years.

Aviation Advisor promoted **Steven Lemke** to charter sales executive. Lemke joined the company's flight operations team in 2021. The company also tapped Melissa Guadarrama as sales and marketing coordinator. Guadarrama has a bachelor's degree in digital media design and an MBA in marketing.

Duncan Aviation promoted **Andy Duckworth** to completions and modifications sales rep at its MRO facility in Battle Creek, Michigan. Duckworth joined the company's upholstery shop in 2017. The company also promoted **Kelly Otte** to the airframe service sales team at its MRO facility in Lincoln, Nebraska. Otte started at the company in 2000, working in the paint shop before moving to the flight control department as a crew leader and later sales associate for service sales. Duncan named **Paul Lewandowski** as program manager for government programs. Lewandowski joined the company 24 years ago as manager of audit programs.



KELLY OTTE

Jowell Giovanelli joined *AOne Parts & Logistics'* team as a buyer/trader. Giovanelli brings more than 10 years of experience in regulatory work. ■

FINAL FLIGHT

Sikorsky Helicopter lost a vibrant link to its past with the passing in September of **Sergei Sikorsky**, son of company founder and rotorcraft pioneer Igor Sikorsky, at the age of 100. He was an eyewitness to the development of the helicopter manufacturing industry.

Following a stint in the U.S. Coast Guard during World War II, Sergei Sikorsky joined the family business in 1951 in the international marketing and sales division for what would be a 41-year career with the rotorcraft manufacturer. In 1976, at the dawn of the OEM's highly successful Black Hawk program, he was recalled to the company's Stratford, Connecticut headquarters to become division v-p, overseeing Sikorsky's co-manufacturing program, and later served in marketing and special roles.

Despite retiring in 1992, Sikorsky remained active with the company, serving as an ambassador at major trade shows and speaking about his family's continuing legacy as the first commercial helicopter manufacturer. In 2019, in what he described as his life's single greatest honor, the aircraft hangar at Sikorsky's Stratford facility was dedicated as the Sergei I. Sikorsky Flight Center.



AWARDS AND HONORS

Doug Matthews was recognized by the *National Aeronautic Association* with the 2025 Frank G. Brewer Trophy, which honors contributions to U.S. aerospace education. Matthews has been involved in aviation education for more than six decades and is a prominent vintage aircraft instructor.

Perry Siler at *Precision Aviation Group (PAG)* was chosen to receive the FAA's Charles Taylor Master Mechanic Award, given to those with at least 50 years of experience in civil and military maintenance and a U.S. Civil Aviation Authority or FAA mechanic or repairman certificate. Siler started his career as an entry-level mechanic with Petroleum Helicopters, later working for Aviall, Arizona Rotorcraft, Africair, and then Air Services International. He joined PAG's Keystone Engine Services (now Keystone Turbine Services) MRO in Coatesville, Pennsylvania, in 2003, where he continues to work as a consultant.

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15 e Total Non-Requested Distribution	4,374	3,616
15 f - Total Distribution	24,704	24,596
15 g - Copies not distributed/office copies	424	89
15 h - Total Distributed /Not Distributed Copies	25,128	24,685
15 i - Percent Paid/Requested	82%	85%
16 a - Paid/Requested electronic copies	9,440	9,500
16 b - Total Paid/Requested Print & Electronic Copies	29,771	30,480
16 c - Total Requested Print Distribution & Requested Electronic Distribution	33,926	33,926
16 d - % Paid/Requested Print & Electronic Copies	88%	90%

Certified correct and complete September 24, 2025 by
Eileen Silberfeld, Audience Development Director



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