Report on Hawker crash prompts questions about charter audits
by Matt Thurber

In the NTSB accident report on the Nov. 10, 2015, crash of a Hawker 700 operated by Execuflight, NTSB member Robert Sumwalt issued a statement that criticized aspects of the charter operator, the FAA and the charter industry.

“I believe the organization that chartered this aircraft expected to get a professionally managed aircraft,” Sumwalt wrote. “I suspect they expected to get a professionally flown aircraft. And I further believe they expected that when the regulator, the FAA, issued an Air Carrier Certificate to Execuflight…the FAA [would] provide adequate surveillance of Execuflight. Tragically, as this investigation found, those charter customers did not get what they expected or deserved in any of these respects. Their expectations were based on a house of cards that created an illusion of safety.”

The Hawker 700 crashed after stalling during a localizer approach to Runway 25 at Akron Fulton International Airport in Ohio, killing both pilots and all seven passengers. According to the NTSB, “The probable cause of this accident was the flight crew’s mismanagement of the approach and multiple deviations from company standard operating procedures, which placed the airplane in an unsafe situation and led to an unstabilized approach.”

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Industry stands ready to fight proposal for independent ATC
by Bill Carey and Kerry Lynch

Business and general aviation groups are girding for a tougher battle over the future of U.S. air traffic control after the White House’s budget embraced the airline-backed proposal to separate the ATC organization from the FAA.

Details were sparse, but on March 16 the Trump Administration released its $1.15 trillion “America First: A Budget Blueprint to Make America Great Again,” calling for Congress to shift the FAA’s responsibility for the ATC system “to an independent, non-governmental organization.” This language approximates what House Transportation and Infrastructure Committee chairman Bill Shuster (R-Pa.) proposed but failed to advance through reauthorization legislation in the last year of the Obama Administration.

The spinoff would render the system “more efficient and innovative while maintaining safety,” the Trump proposal asserts. “This would benefit the flying public and taxpayers overall.”

The budget blueprint contains a declaration of Trump Administration goals for transportation that previously was missing. At her Senate confirmation hearing on January 11, then Transportation Secretary-nominee Elaine Chao was noncommittal when asked for her opinion about ATC

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Safety
FAA addresses RWSL confusion
The runway status light systems rolling out at airports provide an added layer of safety, if interpreted correctly, the agency warns.

Charter
Operator safety plans
Having a plan, checking a box and avoiding an accident is not enough; operators must buy in to the process.

Conventions
Heli-Expo
After a difficult year, the rotorcraft industry gathered in Dallas with a renewed sense of optimism that the civil helicopter market is finally rebounding.

A separate non-government entity would provide ATC services under President Trump’s proposed plan.

Regardless of the economic climate or the geographic region, the top-rated FBOs consistently deliver one thing: superior customer service.
SPECIAL REPORT

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in South Carolina, and Boeing reports the 64 Boeing S.C. transitions to biggest 787

The CFM Leap 1A-powered single-aisle 64 A321neo approved

Annual NBAA conference shone a spotlight on 50 Women in Aviation

and educational event this year.

50 Women in Aviation it from Santa Ana after two decades there.

Signature challenges decision that would oust 12 As well as PC-24 Three

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50 Women in Aviation

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Finance, Registration and Legal Annual NBA conference shone a spotlight on business aviation’s fine print.

AIR TRANSPORT

64 A321neo approved

The CFM Leap 1A-powered single-aisle Airbus was awarded joint FAA/EASA type certification last month.

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The first three 787-10s are under construction in South Carolina, and Boeing reports the process has been smooth.

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The Akron Hawker crash has exposed troubling questions about the real value of an auditor’s “seal of approval.”

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The behemoth can be an unanticipated flying object, as a Challenger crew and pak learned to their stark terror at FL340.

Runway status lights Controllers can’t see them, and those bulbs rule when you’re on the move at an airport.

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K-C Aviation founder died last month.

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After a brief hiatus in bizav’s fight against privatized ATC, Trump’s budget has reestablished the battle lines.

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European regulation affecting “specialized operations” takes effect this month.

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Pre-Owned Update

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LEGACY 500: LEAPS AND BOUNDS BETTER THAN OTHERS

“The cockpit design in the Legacy 500 is clean, dark and quiet, which is very nice. Everything’s at 12 o’clock. The flight deck is efficient in layout, very easy for a pilot to get the airplane started and avionics loaded. As far as using the sidestick and flying the Legacy 500, it really is amazing. You can have the airplane go to a certain position and it’ll hold that position in flight. It’s really neat.

In most airplanes, you have the yoke in the middle; it can be very confining. We had a long trip, about five hours and 45 minutes, and I remember that trip, in the cockpit, I was able to cross my legs. I looked over at the other pilot and said ‘Boy, this is nice. When was the last time you were able to cross your legs in the cockpit?’ And you’re able to do that in the Legacy 500.

The passengers are really taken aback, especially on takeoff. And they’re shocked at how quickly we get to altitude and also how steep of a climb we’re doing. They’re really impressed by that. They’re like ‘Wow, that’s pretty amazing.’

- Brad Knaack, Legacy 500 Pilot
Watch Brad’s story and request more information at EmbraerExecutiveJets.com/Brad

The game-changing Legacy 500 — the first midsize jet with fly-by-wire controls — is the benchmark for the future in performance, passenger room and comfort. On the flight deck, the advanced Rockwell Collins Pro Line Fusion™ platform puts pilots in complete control in a cockpit environment that provides superior ergonomics. With seating for up to 12 passengers, the Legacy 500 delivers a smooth flight in a largest-in-class stand-up cabin with a flat floor, fully equipped galley, state-of-the-art inflight entertainment and elegant seating that converts into fully flat berths in a low cabin altitude. The main baggage compartment is the largest in class and complements generous inflight-accessible cabin stowage space. The clean-sheet-design Legacy 500 is also the fastest jet in its class, delivering a high-speed cruise of Mach 0.82 and excellent runway performance.
Richard Westbrook Emery Passes Away

Richard Westbrook Emery, a member of the Emery family of aviation pioneers who co-founded K-C Aviation with his brother William (Ralph) Emery, passed away on March 4 from complications associated with Alzheimer’s. He was 79.

Emery, the oldest of four brothers, was born in Dallas in 1938 and lived there his entire life, while also maintaining a residence in Sun Valley.

After attending the University of Texas at Austin and Southern Methodist University, he joined the family business, Executive Aircraft Services, which completed and serviced corporate aircraft. When the company was sold to Southwest Airmotive, he became president of the business. He later joined Kimberly-Clark, where he founded K-C Aviation. He served as president and CEO of that business for 20 years, helping it grow into a $200 million operation that serviced Hawkers, Challenger and Gulfstream. Gulfstream ultimately acquired the business.

Emery remained active in the industry, serving on the NBAA Advisory Council board, as well as the board of directors of Duncan Aviation, the Nor- dam Group and the Frontiers of Flight Museum.

He is survived by his wife of 38 years, Gay; sons Richard and Marshall; daughter Courtney Loving; four grandchildren; and brother Joe. His brotherdam Group and the Frontiers of Flight Museum.

By K.L.

The European Business Aviation Association (EBAA) is bringing in veteran communications and marketing executive Brandon Mitchener to run the association. Mitchener, who succeeds Fabio Gamba, steps into his new role as CEO of EBAA on April 3. Gamba departed the association on March 16 after serving at the helm for about five and a half years. Mitchener has had a 25-year career as a journalist and public affairs professional in Europe. Most recently, he was head of corporate communications for Monsanto in Europe and the Middle East.

What has been classified as an accident involving a Bombardier Challenger 604 has prompted international flight-planning orga-nization Flight Service Bureau to issue a caution about the need for lateral separation when smaller aircraft fly near an Airbus A380.

On January 7, a Challenger 604 (registered as D-AMSC) operated by MHS Aviation was flying over the Arabian Sea at FL340 en route to Abu Dhabi when the crew lost control, resulting in “significant loss of altitude, abnormal flight atti-tude, and accelerations beyond the certified flight envelope,” Bombardier confirmed. After losing control, the crew shut down one engine because of a “high inter-turbine temperature,” but the other engine continued to function. The aircraft is believed to have lost as much as 10,000 feet, according to Flight Service Bureau, which cited reports that the business jet had encountered wake turbulence that caused it to roll several times. The crew eventually regained control, rolled the engine and diverted to Muscat, Oman. Some of the nine people aboard were seriously injured during the event, and the aircraft is believed to have been written off because of damage sustained during flight.

Flight Service Bureau added.

“Some pilots feel that, ‘ ATC must do better. It’s the exact opposite.’” He clarified, “It’s not that the tower controller knows better. It’s the exact opposite.”

Designed to meet an NTSB recommendation to provide pilots with direct, real-time warn-ings that runways are in use, RWSLs are slated to be installed at 17 large-hub airports by next year. Red lights positioned at runway ends and entrances, RWSLs light up when aircraft or vehicles are detected on the runways. The fully automated system relies on surveillance data from several sources, among them Airport Surface Detection Equipment X, to track surface movement.

RWSLs are meant to be a last line of surface-movement defense in the rare instances that ATC clearances create conflicts, or an aircraft or surface vehicle does not follow instructions. The system is designed to minimize additional controller workload, so its status, which changes constantly as aircraft enter and exit runways, is not indicated in the tower. Because RWSLs are installed to be visible from flight decks—embedded in the airport surface, angled up slightly—most lights cannot be seen by controllers.

Unsure? Stop and Check

The system has prevented several incidents, Fee said, including two saves that required high-speed aborts. In one case, a ground support worker drove onto an active runway, triggering the system as an aircraft was early in its take-off roll.

“The majority of events that we see are complete saves,” Fee said.

But other incidents have caused concern, such as one last July at Las Vegas McCarran International Airport (LAS). A mainline-carrier narrowbody and a business jet were lined up for takeoff on intersecting runways. As a result of a miscommunica-tion between controllers, both aircraft were cleared for takeoff almost simultaneously.

The airliner rolled first, and the RWSLs on the business jet’s runway illuminated. The business jet began its takeoff, however, and both flight crews executed an ATC-coordinated emergency procedure in which one aircraft climbed rapidly and the other stayed low to create needed sep-aeration at the intersection.

Communication between the business jet crew and ATC immediate-ly after the incident made it clear the pilots saw the warning lights. But they assumed the controller knew the lights were on when he issued the take-off clearance. “[LAS] is not the only event we’ve had like this,” Fee said, noting that the agency stepped up its outreach after the incident. “It’s not a perfect sys-tem, but the data we’re getting shows it’s an effective one.”

What should pilots do when RWSLs contradict the tower’s instruction? “The best action is to stop and question ATC,” Fee said.

Richard Emery

Richard Emery, a member of the Emery family of aviation pioneers who co-founded K-C Aviation with his brother William (Ralph) Emery, passed away on March 4 from complications associated with Alzheimer’s. He was 79.

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He is survived by his wife of 38 years, Gay; sons Richard and Marshall; daughter Courtney Loving; four grandchildren; and brother Joe. His brothers Ralph and Robert Emery, both of whom were actively involved in aviation, passed away in recent years. They are predeceased by their parents L.V. and Lourene Emery.

—K.L.

FAA SEES GROWTH IN NEXT DECADE

The number of turbine business aircraft and helicopters is anticipated to rise in the U.S. by 147,000, or an average growth rate of 1.9 percent annually, according to the FAA’s latest 20-year forecast. The ranks of business jets alone are expected to expand by 2.3 percent each year. The forecast also calls for a 2.4-percent annual jump in turbine aircraft hours, with business jets expected to lead this growth, rising by an average of 3 percent per annum over the next 20 years.

By Sean Broderick

Runway status light (RWSL) sys-tems rolling out at large U.S. airports are meeting expecta-tions as an added safety layer, but the FAA is stepping up edu-cational efforts to address con-fusion and to control “false” alarms. The RWSL system is designed to minimize additional controller workload, so its status, which changes constantly as aircraft enter and exit runways, is not indicated in the tower. Because RWSLs are installed to be visible from flight decks—embedded in the airport surface, angled up slightly—most lights cannot be seen by controllers.

The FAA’s latest annual list of safety focus areas highlights loss of control in flight (LOC-I); runway excursions; single-pilot accident rate; procedural non-compliance; ground-handling collisions; distractions; scenario- and risk-based training; and airspace complexities. The FAA Safety Committee used a data-driven review to identify these topics as primary risk-mitigation targets for all business aircraft operators. FAA will collaborate with regulators, members and other industry stakeholders to develop tools and best practices that address these challenges.

FAA ADDRESSES CONSISTENCY WORRIES

The FAA has gone live with its Regulatory Consistency Communication Board, modeled on a key initiative designed to address long-standing complaints from industry about an inconsistent approach to oversight. The board will be the central authority on clarifying questions about regulatory interpretations from the various regions and district offices. The change was prompted by years of industry complaints that inconsistent interpretation of regulations was creating unfair competitive situations, unpredictability in business operations and spurri...
The expectations for business travel have been redefined. The all-new Gulfstream G500™ is designed to cruise at Mach 0.90 for thousands of miles—because when you fly farther faster, you return home sooner to what matters most to you. Wide-cabin comfort complements near-supersonic performance, making the G500 an aircraft truly optimized for uncompromised travel.

PARADIGM SHIFT

The expectations for business travel have been redefined. The all-new Gulfstream G500™ is designed to cruise at Mach 0.90 for thousands of miles—because when you fly farther faster, you return home sooner to what matters most to you. Wide-cabin comfort complements near-supersonic performance, making the G500 an aircraft truly optimized for uncompromised travel.
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**News Briefs** Compiled by Chad Trautvetter

**Dassault: Expect Recovery Next Year**

Dassault Aviation said last month that it does not envision a meaningful recovery in the business aviation market until next year. Last year the company logged net orders for 21 Falcons, taking account of 12 Falcon 5Xs cancelled by customers who walked away from the program, which has been delayed by technical issues with the twinjet’s Safran Silvercrest engines. Dassault delivered 49 Falcons last year, down from 55 in 2015. The company expects to deliver 45 Falcons this year. “There’s huge pressure to lower prices because of the weakness of the pre-owned market and as a consequence on the new aircraft market,” said Dassault Aviation CEO Eric Trappier. “So we don’t see any positive signs in the market this year, and the recovery should be achieved next year.”

**Europe Saw Bizav Growth in February**

February business aviation departures in Europe, at 53,529, were 0.9 percent higher year-over-year, according to WingX Advance. For the past 12 months, business jet activity has climbed by 2 percent. In February it logged a gain of 4 percent year-over-year, while turboprop and piston usage was down by the same percentage. Operating hours by all business jet segments except heavies saw an uptick in February. VLJ and ultra-long-range hours were up by 10 percent.

**Group Files Motion To Halt SMO Closure**

Arguing that the FAA “disregarded well established statutory and regulatory prerequisites to the release of an airport sponsor from federal obligations,” NBAA and five other aviation stakeholders filed a motion earlier last month requesting a stay in actions to limit the utility of Santa Monica (California) Municipal Airport. The filing seeks an injunction preventing the city from further actions, among them reducing the length of the runway to 3,500 feet from 4,973 feet; and a stay against the FAA from allowing the city to close the airport at the end of 2028. On January 28 the agency announced it had agreed with the city to close the airport in 2028, and to enable the city to reduce the runway length with as little as 30 days’ notice, effectively shutting down most jet operations there.

**Textron Aviation flies third test Longitude**

The third Cessna Citation Longitude joined the flight-test fleet last month, making a one-hour, 40-minute maiden flight from Beech Field, where the super-midsize business jet will be manufactured.

According to FlightAware, the twinjet—registered as N702GL—reached 13,600 feet and 256 knots during the flight. Test pilots Corey Eckhart and UJ Pesonen, along with flight-test engineer Mike Bradfield, successfully tested various systems, according to Textron Aviation. The aircraft will be used for avionics and systems development, as well as collecting flight-simulator data.

Aircraft three joins the test program less than six months after the first Longitude flew.

At press time, the first two flight-test aircraft had logged 250 hours on 125 flights. Textron expects certification of the Citation Longitude by year-end.

The company has started assembly line flow in the east campus Plant IV manufacturing facility at Beech Field, with the first four production Longitudes now on the line.

—C.T.

**Boeing 737 Max 8 Earns FAA Certification**

The Boeing 737 Max 8 gained FAA certification last month, clearing it for service with Southwest Airlines and Norwegian Air Shuttle, among others. Boeing said it has entered the final stages of preparing for the first Max for delivery to customers “in the coming months.”

The Max 8 certification program began a year ago with four airplanes, and the approval paves the way for not only 737 Max 8 airliners but also the BBJ Max 8. With 11 ordered so far, the Max 8 holds the lion’s share of contracts signed thus far for the three BBJ Max variants (see chart).

The first of potentially five variants of the new 737 Max series, the Max 8 airliner seats as many as 189 passengers in the highest-density configuration and 162 in a dual-class layout, placing it in what Boeing calls the heart of the single-aisle market. Powered by CFM Leap-1B turbolfans, it provides a 14-percent reduction in fuel burn and CO2 emissions compared with the 737-800NG, according to Boeing.

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<tr>
<th>BBJ Max by the Numbers</th>
<th>Max range</th>
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<td>7,000 nm</td>
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<td>BBJ Max 9</td>
<td>6,375 nm</td>
<td>Mach 0.79</td>
<td>$82 million</td>
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Sales figures as of March 17, 2017. First green BBJ Max will be delivered next year.

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World-class service doesn’t happen by chance.

Over the past 12 months, we announced the expansion of our Service Center network with new facilities in China and the UK, added thousands of parts and hired hundreds of technicians. We are growing our network of services and support to keep you in the air.

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Tell us what you think in the upcoming AIN survey.
Argus: U.S. Bizav Flying Up in February

Business aircraft flight activity in North America rose 1.3 percent year-over-year in February, according to Argus International. Gains in charter and fractional flying during the month offset a 1.2-percent decline in the Part 91 segment. Charter activity enjoyed a 3.7-percent upturn, while fractions were up 5 percent. Large-cabin jets continue to dominate activity by aircraft category, rising 3.9 percent year-over-year. This was followed by a 3-percent climb in midsize jet flying, while light jets and turboprops declined by 0.5 percent and 0.2 percent, respectively. The Argus data provides “flight-number-specific aircraft arrival and departure information on all IFR flights in the U.S., Canada and the Caribbean.”

Embraer Predicts 100+ Bizjet Deliveries

Embraer is projecting its business jet deliveries this year will remain largely on par with, if not down slightly from, last year’s results, falling somewhere between 105 and 125. The company delivered 117 business jets last year, down from 120 in 2015. But the mix last year weighed more heavily toward larger jets, boosting revenue by $12 million, to $1.73 billion. This year the company expects to deliver 70 to 80 light jets, while large business jets will come in between 35 and 45. Revenue this year is expected to remain between $1.6 billion and $1.75 billion, the company said.

AEA: Avionics Sales Dampened Last Year

Business and general aviation avionics sales fell 6.4 percent last year, to $2.26 billion, according to the latest Avionics Market Report from the Aircraft Electronics Association (AEA). Sales were down from the $2.42 billion reported in 2015 and $2.53 billion in 2014. However, fourth-quarter sales reached $597 million, up almost $50 million from the third quarter. Overall, sales last year were nearly evenly divided, with retrofits accounting for 49.4 percent of the market, or $1.118 billion, and forward-fit applications making up 50.6 percent at $1.144 billion. Geographically, 66.3 percent of the sales were in the U.S. and Canada.

Europe’s SET-IMC Rules Now in Effect

Europe’s new rules permitting night and IMC commercial passenger operations in single-engine turboprops and jets went into effect on March 21. However, individual state approvals must be given before SET-IMC operations can begin, and specific minimum operational, training, maintenance and equipment requirements must also be met. A turbine single cannot even be considered for commercial operations until it has been shown that an “acceptable level of turbine engine reliability” is being achieved in service by the world fleet for that particular airplane-engine combination. Airplanes intended to be used for SET-IMC operations need to be equipped with an emergency electrical system and two separate generating systems, among numerous other requirements. To operate a single-turbine airplane under IFR, the pilot must have at least 700 hours of airplane flight time, including 400 hours as PIC or 800 hours as SIC, with at least 100 hours under IFR.

VistaJet Reaches 100,000-flight Mark

VistaJet announced last month that it has completed its 100,000th flight, 13 years after Thomas Flohr founded the charter and membership-based service. The company has connected 250,000 passengers to 1,600 airports in 187 countries, it said. The milestone was reached as the company continues to add to its all-Bombardier fleet. VistaJet took delivery of 15 new business jets last year, which the company said equated to 26-percent fleet growth. The fleet now numbers 71 aircraft.

Signature challenges FBO decision at SNA

Signature Flight Support filed a Part 16 complaint last month with the FAA disputing the legality of the decision by the Orange County (California) Board of Supervisors to grant another FBO the leasehold Signature held for two decades. Signature filed the complaint after the board on February 28 reaffirmed in a 4-1 vote its decision to hand the leasehold to ACI Jet, a local FBO and charter provider.

Before the board vote, dozens of interested parties, from tenants to employees, spoke on behalf of Signature, questioning why the board would make such a change without consulting the tenants and endorsing Signature’s service and community outreach. ACI Jet is a charter operator, and other such firms at the airport expressed fear that ACI Jet would be able to set the fuel prices that other charter operators pay.

Kathryn Thomson, a former Transportation Inspector General who is an attorney with Morison & Forster and representing Signature, accused the board of going to “extraordinary lengths to manipulate the [contract bidding process] to a predetermined outcome” and warned that the board would be jeopardizing airport grants with a decision to engage in a discriminatory bidding process.

However, Flight Safety Foundation general counsel and former FAA chief counsel Ken Quinn, who is a partner in the law firm Pillsbury and is representing ACI Jet, expressed confidence that the board would prevail in switching FBOs. FBO complaints are rarely successful, he told the board, and he is doubtful that grants would be jeopardized. “There’s been no discrimination,” he said. “You welcomed new tenants.”

A number of other people attended the February 28 board meeting to speak on behalf of ACI Jet or to address pricing issues, indicating a need for more fair pricing. William Borgsmiller, founder and CEO of ACI Jet, said his company’s “history of fair pricing speaks for itself.”

Process Questioned

Signature had tried to ward off the vote with an earlier less formal Part 13 complaint and a protest sent to the county. The board acknowledged the likelihood of facing a formal Part 16 complaint, but supervisor Shawn Nelson, who was an advocate for the switch in FBOs, noted that no matter how the board voted, there would be a complaint filed. “Somebody’s got to win and somebody’s got to lose,” he said.

After the board proceeded with the vote—an affirmation of a determination made in January—the FBO chain delivered a 28-page Part 16 filing to the FAA, laying out a detailed legal case, and implying that political corruption was at the root of the board’s decision.

Among several other issues, Signature’s complaint focuses on the county’s request for qualifications (RFQ) process, which consisted of a complex matrix of criteria and qualifications. Of six applicants for the leasehold, Signature finished first in the ratings, with the other FBO on the field, Atlantic Aviation, finishing second. ACI Jet finished fifth. Despite an independent five-member advisory board and the five-member John Wayne Airport Commission unanimously deciding in favor of Signature and Atlantic, the county board nevertheless granted the leasehold to ACI Jet, according to the filing. The county further gave Signature 30 days to vacate the premises.

Signature is asking the FAA to intervene with a cease-and-desist order against the county to stop the eviction process and then reevaluate the granting of the leasehold. The company claims the decision was based on what Signature characterizes as undue influence on the part of an individual who, Signature said, tried to encourage the board to allow him control of the leasehold.
Utì-li-zation / ' Defined.

noun ~

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Pilatus flew the third and final prototype of the PC-24 twinjet on March 6 from Buochs Airport in Switzerland. The maiden voyage of "series-conforming" P03, registered HB-VSA, lasted two hours and five minutes. P03 joins two siblings in the flight-test program, which began in May 2015 when P01 flew. Pilatus expects to certify the aircraft in the fourth quarter this year.

Deliveries will begin shortly after that approval, with the first PC-24 going to launch customer PlaneSense. Pilatus stopped taking orders after signing sales contracts for 16 of the 20 aircraft; the program was then postponed after the contract was announced in May 2015. Pilatus will install a Zermatt executive interior in HB-VSA, one of six interior and exterior themes designed in cooperation with BMW Designworks, and it will be on display at the European Business Aviation Convention & Exhibition (EBACE) in Geneva, May 22 to 24.

Pilatus chairman Oscar Schwenk said, "The PC-24 flight-test program is proceeding as planned and the results are encouraging. The data we have so far indicates that our Swiss business jet exceeds published performance figures. I am naturally looking forward with immense anticipation to the moment when our first customers take delivery of their PC-24s."

HondaJet Headed to ABACE
Honda Aircraft is bringing the HondaJet to the Asian Business Aviation Conference & Exhibition (ABACE) this month in Shanghai, marking the first static display of the aircraft in China. "We have received strong interest from prospects in Asia, and showcasing the HondaJet at China's premier business aviation event enables us to further strengthen interest in the Chinese and Asian markets," said Honda Aircraft president and CEO Michimasa Fujino.

World Fuel Opens Toluca Office
Miami-based World Fuel Services (WFS) has opened an office in Toluca, Mexico, to bolster support for operators in Latin America. The new office fields a sales and aircraft operations team with experience serving aircraft operators, airports and FBOs with a contract-fuel program. This office joins the WFS network of Latin American offices in Mexico City and Cancún, Mexico; San José, Costa Rica; Bogotá, Colombia; Viña del Mar, Chile; Buenos Aires, Argentina; and São Paulo, Brazil.

Flexjet’s UK Arm Adds Nextant 400XTi's
Flexjet Ltd., the UK sister company of U.S.-based Flexjet, received the first aircraft—a Nextant 400XTi—for its dedicated fleet on March 1. It is expected to have three of the remanufactured light jets by the end of last month and about 10 dedicated aircraft, including at least one larger business jet, within a year. The dedicated fleet will be made available to U.S.-based Flexjet owners who need point-to-point private jet travel within the region or to the Middle East or Africa. The aircraft are being operated by Birmingham Airport-based BlairJet's UK CAA air operator certificate (AOC), which Flexjet Ltd. acquired in August.

AOPA Seeks Relief for Lantara Airport
AOPA is asking the Department of Homeland Security (DHS) to establish a security protocol for Palm Beach County Park Airport (aka Lantana Airport) in Florida to facilitate operations when President Trump visits his Mar-a-Lago estate in Palm Beach. AOPA president Mark Baker wrote to DHS Secretary John Kelly, urging the adoption of screening and gateway procedures that would enable the airport to remain open during presidential visits. The association is underscoring the economic hardship caused by the visits. The airport generates community-wide revenue of $27 million a year.

Two Citations OK’d for Steep Approach
The Cessna Citation Sovereign+ and Latitude have received steep-approach approval from both the FAA and EASA. With the certification to track approach angles of up to 6.65 degrees, these midsize jets can now operate into destinations such as London City Airport and Switzerland’s Lugano Airport. However, crews need separate approvals from authorities at these airports to conduct steep approaches there.

FAA Warns about Transponder Tests
Incidents of improper ground testing of transponder and ADS-B out equipment have resulted in false position information, such as simulated altitude, being transmitted from the test aircraft and received by aircraft in flight. According to the FAA, in at least one case, an ADS-B out system ground test created a false airborne target that generated a Tcas resolution advisory (RA) to an airliner on approach. The FAA is thus advising repair stations and maintenance personnel performing transponder and ADS-B systems testing to evaluate the adequacy of their methods and adhere to proper test procedures, such as antenna shielding, to prevent propagation of test signals that could affect ATC operations or airborne aircraft.

17 bizjet deliveries still in ‘normal range’
by Kerry Lynch

While business jet shipments last year reached the lowest point in more than a decade, General Aviation Manufacturers Association chairman and Piper Aircraft president and CEO Simon Caldecott believes that the volume is in the “normal range.” During its annual industry review on February 22, GAMA provided a market overview, detailing a 3.9-percent drop in overall shipments and a 7.9-percent slide in business jet deliveries. (See AIN, March, page 10.)

Caldecott, whose resume includes executive positions for the former Hawker Beechcraft, had noted that the 661 business jets delivered were the fewest since 2004 and associated billings were down 16.1 percent. But he notes that when data from 2007 to 2009 (a period of rapid growth for the industry) is excluded, deliveries have remained between 600 and 800. He conceded that 2016 was on the low end of that range, but said, “I believe the volume is the norm.” But he did not rule out future surges. “We will see some years of significant growth,” he added.

The decline in business jet deliveries was not uniform among categories, he added, noting that light jet shipments improved, while those for midsize and large jets declined. Pointing to the drop in billings, he noted that even a small shift in large-cabin business jet deliveries can have a notable effect on billings. Even so, he added, the billings are still twice those reported in 2013.

By geographic region, North America remained the largest market for business jets, accounting for 62 percent of the deliveries. “In fact, this is the largest market share we’ve seen in a long time,” Caldecott said.

The latest numbers from GAMA show piston aircraft deliveries also sliding, by 4.9 percent, but billings for those aircraft jumped 9 percent. Caldecott pointed to higher-value aircraft being sold, and added, “Last year was not totally bad news.” He added that with the pilot shortage coming into focus, the training market continues to strengthen, particularly in North America, which accounted for nearly 70 percent of all piston deliveries. “Piper has seen a lot of flight schools re-equipping,” he said.

Caldecott was encouraged by the 3.4-percent uptick in turboprop deliveries, reiterating that this comes with the addition of new products and improvements in the agricultural market. “The 2016 year-end results were disappointing overall, although we did see some blue sky in the turboprop sector,” added GAMA president and CEO Pete Bunce. “As we look toward 2017 and beyond, we are optimistic about

Legislative Agenda
Other industry executives outlined their concerns for the industry. Caldecott reiterated the importance of the FAA’s Part 23 rewrite, explaining how it will provide a boost for new aircraft and aircraft in service by getting products to market sooner.

Caldecott said he anticipates that the EASA will finish work shortly on the counterpart CS-23. While the FAA rule doesn’t take effect until August, he anticipates that the first products certified under the new process will begin to reach market by year-end or early next year.

Phil Straub, managing director of aviation and vice president of Garmin, added that the rewrite effort has already spurred a more collaborative, risk-based approach, with the FAA and other agencies bringing key safety technologies to market to replace aging equipment. This is particularly important, he said, as more systems in the arena of automation are introduced.

Aaron Hilkemann, president of Duncan Aviation, updated progress on ADS-B installation, reporting that 30,000 aircraft have completed the upgrades; an estimated 100,000 to 160,000 will need to be equipped. Repair station time (Continues on page S7)
Aviation enters a new era with a multifunction chronograph delivering unprecedented performance. At the heart of this high-tech feat beats a (COSC) chronometer-certified SuperQuartz™ movement specially developed by Breitling for aviation. Equipped with a sturdy and light titanium case, the Cockpit B50 innovates with its huge range of functions, extreme user friendliness, rechargeable battery and an ultra-legible high-intensity display mode. Reliable, accurate, efficient: the ultimate pilot's instrument.
**EASA’s Part SPO rule takes effect this month**

by Ian Sheppard

Aircraft operators in Europe who conduct so-called “specialized operations” (aerial work, anything from banner towing to crop spraying to surveying power lines) could be in for a shock this month if they don’t prepare for new legislation from the European Aviation Safety Agency (EASA). On April 21, a large number of operators, from the smallest to the biggest, will need to comply with Part-SPO (for “specialized operations”).

For most operators this means declaring that they have taken certain steps to manage risk in their specialized operations. However, for commercial operators conducting “high-risk operations” compliance requires an additional formal authorization.

According to Joel Hencks, managing director of consultancy AeroEx.eu, who chaired the industry committee scrutinizing the legislation from the Notice of Proposed Amendment (NPA) stage some years ago, the proposed rule was not originally meant to affect non-commercial operators. Rather, the intention was for commercial operators to have the advantages of an AOC-like certificate—such as free movement in the EU market, tax on fuel—without the overheads.

However, the new rule has become another bureaucratic headache for the industry.

“The original intent, to certify commercial SPO operators, replaced by an authorization for high-risk commercial specialized operations and cross-border approval by each National Aviation Authority (NAA) where the operations take place, led to a lack of industry input and awareness. In addition, Europe’s separate NAAs that are tasked with overseeing Part-SPO in operation are still a little bit lost as to how to apply this provision,” Hencks told AIN. Specifically, each NAA has to decide how to define “high risk.” Some EASA nations, such as Switzerland (not in the EU but still an EASA state), France, Austria and the UK, for example, have criteria and a list. But many of the others have not taken this step, according to Hencks.

Implementation Confusion

This could mean that come April 21, operators would have to cease cross-border business (for example, a German company that has operations under contracts in Italy). Meanwhile, EASA is treating the legislation as completed and is just waiting for it to come into force. “So operators don’t know if they will still have that business after April 21,” said Hencks, who added, “This is an absolute mess and there is no clear guidance.” He also warned that the lead time could be many months to have an application approved, even if the controlling NAA is ready to accept it. In addition, the usual issues over principal place of business also apply (as was the case with Part-NCC, the non-commercial operations rule).

Philippe Renz, of Swiss law firm Renz & Partners, said that during an EASA conference on Part-SPO in January, an EASA representative gave the clear impression that it thought such operations were marginal and therefore did not properly scrutinize the changes that appeared by the time the formal EASA Opinion was published. “It’s too late to change anything before the deadline,” said Renz.

So what do operators need to do? “First,” said Hencks, “they need to identify whether or not high risk applies to them. This could have a major impact, especially for larger operators with long-term contracts, such as power-line inspections.”

“Second, they need to see if cross-border applies, and as with NCC this is a question of [knowing your] principal place of business.” In each case, their first point of call will need to be their NAA, although in most cases “they won’t have the answers and will have to go to EASA.”

He said that there are lots of legal questions to be dealt with, “once you get down into the detail,” so operators should not delay in preparing. “Most at EASA and the NAAs are not aware of the details either, and many countries haven’t regulated aerial work at all before; they have just regulated operators with AOCs, so most don’t know even that they will be regulat- ed soon.”
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One Aviation mulls retiring Eclipse 550

by Kerry Lynch

One Aviation is weighing a possible phaseout of the Eclipse Model 550 this year as it works to bring the Eclipse Canada to market. Unveiled last year, the Canada will replace the 550. But even though the revamp may not be available until late next year or early 2019, One Aviation is considering ending production of the 550 after the next five aircraft, all planned for delivery this year, said chairman Alan Klapmeier. Market forces and supply issues are playing a part in that decision, Klapmeier told AIN. When One Aviation resumed Eclipse production, the company was able to tap into a backlog of already developed components for the Pratt & Whitney Canada PW610 engines. But the program has now run through those components, necessitating a decision about whether to restart a production line for a short time at a relatively low rate.

Production Restart Possible

Noting the expense of such a move, Klapmeier said the company may opt instead to continue SE upgrades and support of the 550, as it works toward certification of the Canada. But he is not completely ruling out continued production of the 550, as the company works out the timing on an order it received from Chinese buyers for 20 aircraft. In November 2015 the company announced the order, at the time valued at roughly $60 million, as part of a recent dealership agreement with Jinggong General Aviation in China. Deliveries were planned to extend over several years, as One Aviation and Jinggong work to obtain Chinese certification and build sales, training and support networks in China. Klapmeier said he remains optimistic about the strong potential of the Chinese market, but noted that establishing a presence there and obtaining certification takes time. Depending on that timing, the order could end up as a mix of 550s and Canadas, or all Canadas.

The Canada will have extended wings (two feet longer on each side), 7 percent more cabin volume and 31 percent more baggage volume than the 550, and an anticipated range of 1,400 nm. The aircraft is expected to be powered by larger P&W PW615 turbofans, but a contract still must be finalized. One Aviation further is offering the new jet with the Garmin 3000 avionics suite. The company may also offer customers the option for an IS&S panel. IS&S supplies avionics for the current 550.

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Maintenance techs show off skills at annual competition

If you’re reading this at the beginning of April, you may still have time to sign up for the MRO Americas conference being held in Orlando from April 25 to 27 at the Orange County Convention Center. This is the premier aviation maintenance conference in the U.S., in my opinion, and the attendance shows that others feel this way as well.

There are many reasons thousands and thousands of maintenance executives and professionals attend the MRO Americas annual conference if they are involved in aviation maintenance. The exhibitions and noted speakers on the latest trends in aviation maintenance are, of course, a huge draw. The opportunity to network with industry professionals, as well as the FAA and the military, is another major reason to attend. But for me, the highlight will be the annual aviation maintenance skills competition, which is being held for its third consecutive year in conjunction with the MRO Americas Conference.

Yes, I am somewhat biased. I’ve been supporting the Aerospace Maintenance Competition—run by the Aerospace Maintenance Council (AMC)—since it began 10 years ago, and for the last three years I’ve been its president.

The AMC is a nonprofit organization that promotes and supports aerospace maintenance skills. The main focus of the council is encouraging and enhancing aviation maintenance technician skills by holding an annual three-day competition where five-person teams showcase their skills in competition with teams from all over the U.S. and eight other countries. This year we have teams from Australia, Bahrain, Canada, China, Great Britain, Guyana, Mexico and Pakistan.

It’s a significant expense for many of these colleges to send teams, but some feel the competition is so important that they field more than one team, among them Embry-Riddle, Eastern Florida, Middle Tennessee State, Pittsburgh Institute of Aeronautics and South Seattle College. Last year, the first place winning college team was from Utah State (in addition to other prizes, the school won a $10,000 boroscope); second and third places went to West LA College in California and Broward College in Florida, respectively. Participation is truly nationwide.

The teams can register in one of five categories: airlines; general aviation; military; repair and manufacturing; and school and space. Leading aerospace companies provide testing equipment such as an aircraft engine and boroscopes. There are 28 events, with 27 tests, in subjects such as non-destructive testing, composite repair, fuel quality, pitot static, cable rigging, fiber optics and ADS-B troubleshooting. The criteria for the tests are rigorous.

The AMC event is run in association with Snap-On, a long-time sponsor and supporter of the skills competition which, among other things, provides $75,000 in tools as prizes to winning teams. Sponsors are critical to every facet of the event and many contribute in ways too numerous to list here. I do want to mention the significance of one donation because it helps fund the travel of our college teams, the future of our industry. For the second year in a row, American Airlines has contributed one million miles, which allows 15 to 20 students to travel to the event without charge.

I hope I’ve convinced at least a few of you to attend this year’s MRO Americas Convention. If you are already attending, please stop by and cheer on our teams.

The opinions expressed in this column are those of the author and not necessarily endorsed by AIN.

John Goglia is a safety consultant. He welcomes your e-mails at gogliaj@yahoo.com.
Manufacturing on House agenda

by Kerry Lynch

The U.S. Congress signaled that aircraft manufacturing remains high on the agenda, with the House aviation subcommittee holding the first hearing of the 115th Congress on improving the certification process. In the previous Congress, the subcommittee backed proposals in a long-term FAA reauthorization bill seeking continued improvement in the FAA’s certification efforts. But those provisions were sidelined after Congress opted for a short-term extension of FAA authorization instead of a more comprehensive bill.

“Manufacturers [that] design and build to meet these standards...can experience needless and harmful bureaucratic delays, both internationally and domestically. These delays can be detrimental to U.S. manufacturers trying to compete globally,” aviation subcommittee chairman Frank LoBiondo (R-N.J.) said, opening the hearing.

Peggy Gilligan, the FAA’s associate administrator for aviation safety until she retired at the end of last month, outlined a series of initiatives the agency is undertaking, among them a reorganization of the Aircraft Certification Service and development of a “score card” that holds both government and industry accountable.

**Forward Momentum**

Progress has been made, agreed Michael Thacker, who recently moved to Bell after serving as senior v-p of engineering for Textron Aviation. But he said even greater progress can “capture benefits” of those changes. Thacker also appealed to the panel to look at measures that guard against what he called “regulatory creep.” Manufacturers need a clear path to compliance and to be able to assume that approved approaches and documentation will remain valid, he said, and “this is not always the case.” Approval of a new aircraft can entail a lengthy “Issue Paper” that imposes new requirements or special conditions that specify requirements not already in the regulations. He urged a streamlined process for updating regulatory requirements for Part 25.

John Hamilton, vice president of engineering for Boeing Commercial Airplanes, highlighted the importance of improving validation. He noted that the company has received orders for the 737 Max from 83 countries, and each country must validate the model. “This process is not meant to be a re-certification,” he said.

This process should be quick and efficient, he said, but in some places it can take up to 14 months. Hamilton told lawmakers that the FAA cannot efficiently work with that many countries for a smooth validation process without resources and support from Congress. “The FAA’s role in this global competition is critical,” he said.
For the FBO industry the major trend remains one of consolidation, best exemplified by Signature Flight Support’s recent digestion of Landmark Aviation. In one fell swoop Signature swelled its ranks by 60 locations, making it the first FBO chain to exceed 200 worldwide, and eliminated a primary competitor.

The Justice Department required the new owner to shed six locations, and they became the nucleus of a newly relaunched Ross Aviation last summer (see sidebar on page 42). Indicative of the circular nature of deals in this industry, some of the locations were those it had sold to Landmark just two years earlier. “I think there was a quantum change in the FBO consolidation dynamic with the Signature/Landmark transaction,” noted Stephen Dennis, chairman of industry consultancy Aviation Resource Group International (ARGI). “However, what is interesting is that the demand for FBO acquisitions remains high. In my opinion, the void left by the aforementioned deal is being filled by demand from ‘new’ private equity entrants, along with the current ones funding existing network operators.”

Three of the independent locations that ranked in the top 5 percent of the 2016 AIN FBO Survey were acquired by chains in the ensuing months. Ross Aviation, Sheltair and Atlantic Aviation acquired AirFlite at California’s Long Beach Airport, Florida’s Tampa International Jet Center and Colorado’s Black Canyon Jet Center, respectively.

Yet Dennis believes the pace of consolidation will slow. “Many, if not most, of the most profitable FBO markets have been consolidated, and while there remain some opportunities, I believe we are approaching an optimal level of FBOs,” Dennis told AIN. “There were 10,000 FBOs in the early 1980s and today the industry has consolidated to 3,500...The majority of economic combinations of FBOs is behind us.”

ON THE UPSWING?

Business aviation flight operations in the U.S. rose by 1.35 percent between 2015 and 2016, marking the sixth straight year since the 2008 economic downturn that the industry has seen a gain, according to the FAA’s February Business Jet Report. New Jersey’s Teterboro Airport, home to six FBO facilities, saw the most activity over the past year, logging 138,000 operations between February 2016 and January of this year.

Industry flight hours rose 3.8 percent year-over-year, according to industry data provider Argus. The number of flight hours in large-cabin jets operated under Part 135 grew by 10 percent last year, while the number of hours in the midsize and small-cabin sectors was up by 3 and 1.8 percent, respectively. The Part 91 large-cabin segment was up 4.1 percent, while midsize and small-cabin flight hours grew by 3.4 and 4.2 percent, respectively. Turboprop flight activity grew by 3.5 percent last year, which Argus described as “one of the best years” business aviation has seen, with year-over-year gains in flight activity in 11 of the 12 months.

“Business aviation is experiencing strong growth in flight hours, and most segments of the aviation support industry are feeling the positive effects,” added ARGI managing partner Mark Chambers.

The price of fuel, still at lows that many believed could not be sustained, was lower last year than in 2015, by as much as 40 cents per gallon in some areas of the U.S., according to fuel price consolidator Fuelerlinx.

Enthusiasm among service providers is running high: 93 percent of FBOs responding to the Aviation Business Strategies Group’s annual industry confidence survey at the beginning of this year predicted they would have either the same level of fuel sales in 2017 or see gains, while more than half of respondents (up from just 27 percent last year) indicated that the economy is moving in the right direction.

Against this backdrop, we present the worldwide results of the 2017 AIN FBO Survey. The survey responses demonstrate that to be a top-scoring FBO, facilities must be consistently good at everything. It is not enough to excel in one area.
This report of AIN’s FBO survey covers fixed-base operations worldwide. For the first time, we are combining our reports on FBOs across both the Western and Eastern Hemispheres.

**HISTORY**

AIN has been conducting surveys since 1981, asking about the service that FBOs provide their customers and reporting the results from these surveys. Initially, we sent out a paper survey questionnaire by mail to qualified subscribers in the U.S.—pilots, flight attendants and dispatchers—the people who use or make arrangements with FBOs. In later years, qualified subscribers in the remainder of North America and the rest of the world were added.

In 2006 we moved the FBO survey online. We have continued to add FBOs each year and now offer respondents a comprehensive list of 4,500 FBOs worldwide.

**THE SURVEY**

This year’s annual FBO Special Report marks the second in which we have reported overall averages on a cumulative basis and the first in which the FBO survey site was live for the entire year.

The survey site allows subscribers to keep a list of personalized FBOs and from this list they can easily change or affirm a prior rating and leave an updated comment. During this survey period we saw a dramatic increase in ratings compared with last year.

The scores in this report and on our website reflect the cumulative average of scores from 2013 through today. Only the most recent rating of an FBO is counted on a per-user basis and only FBOs that have received 30 or more ratings are eligible for their scores to be published.

From April 1, 2016, until Feb. 10, 2017, we asked subscribers to update and give new ratings for FBOs they have visited in the past 12 months. We contacted readers via e-mail, announcements in our e-newsletters and in the January issue of *Aviation International News*. The bulk of this promotion took place from Dec. 1, 2016, through Feb. 10, 2017.

The site asks readers to evaluate FBOs they visited the previous year in five categories: line service; passenger amenities; pilot amenities; facilities; and customer service representatives (CSRs). For each of these categories, the participant is asked to assign a number from 1 to 5, 1 being the lowest and 5 being the highest.

**OBSERVATIONS**

Each year we review ratings to ensure their accuracy. On our new site we have a system to flag, review and, if necessary, remove ratings identified as dubious by factors such as e-mail address, IP address and concentration of scores.

During the last four days of this survey period, unfortunately, we saw a large spike in suspicious activity which did affect, for those few days, the overall averages on the website. All of these ratings have been discreeted and the offending parties have been contacted. Additionally, we have already made the necessary changes to ensure that these types of ratings will not affect published scores on the site in the future.

**SCORE CALCULATIONS**

An FBO’s overall average is calculated by adding all the individual category ratings received by that FBO and dividing the resulting sum by the total number of all category ratings received by the FBO. In other words, if a particular FBO was evaluated by 50 people (and assuming that all 50 evaluators gave that FBO a rating in each of the five categories), then the FBO would receive a total of 250 category ratings. These 250 category ratings are added together and then the sum is divided by 250 to arrive at the overall average for this FBO. Using this system, the overall averages are calculated using the cumulative average of all ratings given from 2013 through the present. This year’s results will show an FBO’s increase or decrease versus that FBO’s cumulative rating from one year ago.

In April last year, we began to weight ratings slightly to reflect a number of different factors such as known demographic information and number of ratings. For example, the response of a reader who rates only a single FBO will have less weight than that of a reader who evaluates multiple FBOs around the country.

To learn more, please visit our FAQ page at www.ainonline.com/fbo-survey-faq.

—D.L.

### Top Rated FBOs in the Americas 2013-2017 (By Overall Average)

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<tr>
<th>FBO</th>
<th>Airport Code</th>
<th>Overall Rounded</th>
<th>Change from last year</th>
<th>Percent</th>
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<tr>
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**Most Improved FBOs over Past 12 Months**

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<tr>
<th>FBO</th>
<th>Airport Code</th>
<th>Overall Average</th>
<th>Change from last year</th>
<th>Percent</th>
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<tbody>
<tr>
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<td>10%</td>
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<tr>
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</tbody>
</table>


Jet Aviation (PBI)

“Our team does not believe in the word ‘no,’” but rather we find a solution to our clients’ requests,” said general manager Nuno Da Silva, adding that the FBO’s CSR team attempts to anticipate the needs of clients and create a positive experience every time they visit.

The current 18,000-sq-ft, two-story terminal was recently remodeled with updated furniture and an enhanced customer service counter. The Air Elite FBO Network member offers a pilots’ lounge with massage chairs, lounge chairs and tropical slushies; a snooze room with zero-gravity chairs; showers; flight planning area; conference room; onsite car rental; U.S. Customs; business center; guarded entry to the airport and ramp; crew cars; vans and SUV for transport to and from the airport; and a passenger lounge with a coffee bar, cookies baked daily, freshly squeezed lemonade and locally made ice cream. The location is a DCA access gateway under the DASSP program and is currently working to achieve IS-BAH certification.

The Phillips 66-branded facility has 160,000 sq ft of hangar space, which can accommodate BBJ-size aircraft, and to accommodate growing traffic it is working with the airport authority expand its presence with two new hangars, a satellite terminal, fuel farm and more ramp space. “We have seen a greater number of customers spend more time in the South Florida area throughout the year, as opposed to the past, which had a much more defined season,” Da Silva told AIN.

The FBO offers 108,000 sq ft of hangar space and another 32,000-sq-ft hangar is under construction. According to Sheltair senior vice president Frank Seymour, a ramp expansion project is planned for next year.

Palm Beach International Airport (PBI), West Palm Beach, Fla.

As Jet Aviation observes its 50th anniversary this year, the Palm Beach, Fla., FBO performed well enough over the past year to earn the second highest score overall (4.75) and sharing top honors for pilot amenities (4.73).

When Atlantic Aviation acquired Black Canyon Jet Center last summer, it gained a location known for its exceptional customer service, earning the highest individual category score in last year’s survey for its CSRs. That trend continued through the acquisition, as the location earned its highest total (4.84) in the category.

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The greatest journeys **Begin** and **End** with Million Air.
on the process and will soon appoint a training and safety coordinator for the entire organization. Ultimately, the location’s success stems from hospitality, according to Hall. “When you strip away all of the amenities, technology, brick and mortar and the flashiness that sometimes surrounds our industry, our service simply comes down to taking care of people and building relationships.”

4.71

PENTASTAR AVIATION

Oakland County International Airport (PTK), Pontiac, Mich.

Starting out as the in-house flight department for carmaker Chrysler, Michigan-based Pentastar Aviation, in operation since 1964, has evolved into a full aviation services provider. In addition to the expanded FBO services of aircraft charter, management, maintenance, interior completions and sales, the location, a DCA Approved Gateway under the TSA’s DASSP program, operates its own in-house catering kitchen, Fivestar Gourmet. The largest of four FBOs at Detroit-area Oakland County International Airport (PTK), the company employs 221 people and is open 24/7 with line technicians and CSRs on duty around the clock.

4.72

FARGO JET CENTER

Hector International Airport (FAR), Fargo, N.D.

It’s one thing to provide excellent line service when the temperature is 80 degrees and sunny, but it’s another thing entirely to be recognized for your facility’s line service when the temperature is 20 degrees below zero with a -40 degree wind chill. That is the range of conditions the staff at Fargo Jet Center faces, and yet it earned the highest mark (4.79) in the line service category in this year’s AIN FBO Survey.

Known as a tech stop for international operators, the 8.5-acre location offers 24/7 U.S. Customs, which cleared 650 flights last year, but the facility also offers Part 135 aircraft charter/management, aircraft sales, a Part 145 repair station, paint and interior completions, and the only privately operated jet bridge in the U.S. Known for its large 24,000-sq-ft heated hangar, the Fargo location offers 55,000 sq ft of offices and workshops. With its sister interiors shop, the company’s vice president of marketing, Valet parking has also proved popular among the FBO’s clientele. To keep the location in top condition, it employs a full-time building maintenance technician as well as a dedicated corporate housekeeper.

The facility has 165,000 sq ft of hangar space and 55,000 sq ft of offices and workshops. With its sister FBO Premier Jet Center in Minneapolis becoming the first FBO in the upper Midwest to achieve IS-BAH certification, the Fargo location has just embarked on its audit by year-end.

4.70

ROSS AVIATION

(Formerly AirFlite), Long Beach Airport (LGB), Long Beach, Calif.

When Ross Aviation purchased the former AirFlite FBO at Los Angeles-area Long Beach Airport/Daugherty Field from Toyota last year, the company acquired a location that had been the top-rated location in AIN’s...
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annual survey for the past three years. Operated by the automaker from 1989 until its sale last year, the four-story, 35,000-sq-ft terminal has been meticulously maintained throughout its existence.

Given the FBO’s sterling pedigree, Ross has attempted to maintain a hands-off approach, “providing local management with support, but allowing [them] the flexibility to operate the location as necessary to maintain that positive customer experience.” The facility, a member of the Air Elite Network and one of four FBOs at Long Beach, has 132,000 sq ft of hangar space capable of sheltering aircraft up to a G650. Ross is currently in discussion with the airport authority to lease another parcel of land adjacent to the 12.2-acre leasehold to build another hangar. It has also installed a staffed Go Rentals desk in the terminal lobby. When it comes to customer service, Ross said, “consistent service has long been associated with the facility; it operates 24/7 and most of the 20 staff remained during the transition. “We are continuing the AirFlite tradition whereby a prospective employee is interviewed three times,” noted John Farmer, Ross Aviation’s COO, “once by HR, and twice by current employees to ascertain if the prospect would be a good fit and uphold the highest standards for delivering customer service.”

**SkyService**

Lester B. Pearson International Airport (YYZ), Toronto, Canada

Among the top 5 percent of FBOs in the AIN survey for the second year running, and the only Canadian service provider to crack the top 10 percent, is SkyService at Canada’s busiest business aviation gateway. The company, consisting of four FBOs after its purchase of the Ottawa Avitat facility late last year, marked its 30th anniversary last year, and the Toronto location (in operation for quarter century next year) has seen steady business over the past year, with a growing trend of customers tending to arrive in larger aircraft, according to company chairman and CEO Marshall Myles. “We have also seen more international traffic as Toronto becomes more popular with crewmembers who have a long stay in Kansas City,” he told AIN. Many of the facility’s CSRs have a decade of experience with the company. Indeed, the front-desk service team has 200 years of combined experience in the industry, and that experience is evident in the location’s highest score (4.92) in the CSR category. “Our facility is known by the familiar faces at the FBO who remember and relate to customers on a professional and personal level,” said Mike Denham, the location’s director of FBO operations, adding that the CSR staff attended Ritz Carlton training earlier this year.

The location’s 12,000-sq-foot terminal offers three A/V-equipped conference rooms, the largest with a capacity of 30 people, a Starbucks coffee bar, 24-hour available onsite Canadian Customs, a gym with shower facilities, onsite car rental, spacious passenger and crew lounges, crew snooze rooms, flight planning center, courtesy offices with computers and Wi-Fi, a 24-hour courtesy shuttle to any location in the area, and valet service directly to the aircraft. The facility, which is pursuing IS-BAH certification, recently introduced a new line-service position known as a ramp safety service attendant, “an entry-level position that allows those aspiring to work in the industry to get their foot in the door,” Noted Denham. “We foster a culture of growth and mentorship for our employees. SkyService has a longstanding history of long-term employment and a low turnover rate. We credit this to our strong training programs and the sense of community that we offer.”

The Toronto location, which occupies nine acres at YYZ, is open 24/7 with a staff of 40 for the FBO and 200 overall, a number that includes the maintenance division. That unit serves as a Bombardier authorized service center as well as Gulfstream’s official warranty facility for Canada. Supplied by World Fuel Services, the facility offers 200,000 sq ft of heated hangar space, which can accommodate several 737s simultaneously, for transient aircraft storage, plus another 78,000 sq ft for based tenants.

**Atlantic Aviation**

Charles B. Wheeler Downtown Airport (MKC), Kansas City, Mo.

Owned by Atlantic Aviation since 2013, the facility at Charles B. Wheeler Downtown Airport raised the bar for FBO services when it made its debut at the Kansas City gateway in 2010. Open 24/7, the location has a primary 26,000-sq-ft, two-story terminal featuring a fitness center with showers and locker rooms available to transient customers, based tenants and the location’s employees, and three conference rooms. The three private crew snooze rooms — sponsored by local hotels and outfitted with a bed, TV and private bathroom — have proved popular with crewmembers who have a long stay in Kansas City or who need quick accommodations.

The spacious lobby in the main terminal contains artwork furnished by local artists through the city’s art council project and is changed every quarter, keeping the facility fresh, all of which helps translate into the location’s consistent 4.7 score from AIN’s readers for passenger amenities, pilot amenities and facilities. A smaller, 7,000-sq-ft terminal is reserved for the location’s based customers. The location currently has 52,000 sq ft of hangar space capable of sheltering the largest business jets, with another 8,000-sq-ft hangar scheduled to be completed this spring, to accommodate the steady growth in traffic.

Open 24/7, the FBO has 26 employees, and according to general manager Kyle Eiserer, “customer service boils down to treating customers with respect, maintaining a positive attitude and ensuring that we execute with precision 100 percent of the time.” The location participates in Atlantic’s proprietary training program, and Eiserer noted that providing top-notch service to the facility’s customers is the goal of all employees.

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**FBO Survey 2017**

**The Americas top 10%**
Rider Jet Center
Hagerstown, MD (KHGR)

As the sole FBO at Hagerstown Regional Airport and in close proximity to major cities, Rider Jet Center is the perfect location to remotely base your Washington / Baltimore corporate flight department, avoiding congestion while receiving the best care in the industry. With more than 40,000 square feet of heated hangar space and 10,000 square feet of office space, Rider Jet Center is capable of storing aircraft as large as a Gulfstream or a Global Express.

riderjetcenter.com
The facility’s 50,000 sq ft of heated hangar space, which can accommodate the largest dedicated business jets, is normally filled to capacity with member aircraft. A long anticipated Phase II expansion project, delayed by XJet’s expansion into London and Dubai, is set to launch this summer. It will involve a ramp extension and an extensive remodeling of the 20,000-sq-ft terminal/clubhouse, before the addition of another 50,000 sq ft of hangars and an upscale restaurant. To manage demand for the new space, XJet introduced a new tier of membership that gives customers the option to reserve hangar space in the new development.

Among the amenities is a complete flight concierge support, an A/V-equipped conference room, pilots’ lounge with snooze room and separate workstations, relaxation room with massage chairs and fountain, onsite car rental and airport transfers. One popular feature is the climate controlled auto spa and storage facility adjoining the terminal, where members can have their vehicles cleaned, fueled and even serviced if necessary before their return. In 2015, the Avfuel dealer, which has a staff of 29 and is open 24/7, became one of the first FBOs in the U.S. to achieve IS-BAH certification and it is now working to achieve Stage II certification.

Over the past year, the company introduced an advisory board consisting of members and flight crews, providing customers with a channel to voice their concerns and desires for future development of the facility. “As a member-driven club, our goal is to create the highest standard in aviation, and the purpose of this intimate group is to make sure we have a clear understanding of what’s important when evaluating how best to enhance the member and clubhouse experience, our seven-star service and the operation as a whole,” said company founder and CEO Josh Stewart.

Aurora Municipal Airport (ARR), Aurora, Ill.

Chicago is ringed with many airport choices for business aviation operators, but among them only J.A. Air Center, one of two service providers at Aurora Municipal Airport, has consistently been recognized by AIN’s readers. While the company (initially known as Joliet Avionics) as been in operation for half a century, it moved to Aurora just nine years ago, and has racked up enviable scores ever since its new facility opened. The 10,000-sq-ft terminal and 15,500-sq-ft arrival canopy once again earned the Phillips 66-branded location its highest score for facilities (4.74). “The canopy continues to be a huge draw at our airport,” said general manager Randy Fank. “With music streaming and protection from all weather, our customers feel welcome and special from the moment they taxi up.”

Among the facility’s amenities are a workout room, snooze rooms, conference room, courtesy cars and an abundance of private lounge space. One added attraction in the lobby is a rotating display of vintage cars on display, courtesy of a partnership with nearby golf course Rich Harvest Farms and its car museum.

The location is open daily from 6 a.m. until 10 p.m., and the company offers maintenance, avionics, interiors, aircraft detailing, charter/management, sales and even a flight school. “We can do everything any customer might need,” Fank told AIN, adding that the airport is exploring the option of providing U.S. Customs, which would open up his company’s services to the wider international market.

Amongst all its divisions, the location has 75 employees with one common goal. “From the minute the airplane touches down, to the minute they are wheels up, we want customers to feel like they made a fantastic choice by choosing J.A.,” said Fank. “We never stop thinking of new ways to attract new customers and keep our current customers completely satisfied.”

The location has 100,000 sq ft of heated hangar space capable of sheltering a G650. Easy access to a main runway leading into Chicago makes travel downtown faster than it would appear on a map, according to Fank.

4.67
SIGNATURE FLIGHT SUPPORT

Scottsdale Airport (SDL), Scottsdale, Ariz.

Scottsdale Airport (SDL) has seen some churn in the ownership of its two FBOs as a result of industry consolidation over the past few years. Signature Flight Support’s location there, the highest-rated location in the 200-strong network in this year’s AIN FBO Survey, was formerly owned by Ross Aviation, which was acquired by Landmark Aviation. Landmark already operated the other FBO at the airport, so Signature acquired the surplus facility, when Landmark was required to sell it as part of the regulatory approval of the transaction. When Signature in turn bought Landmark, it was then similarly required to sell off the former Landmark FBO at SDL, eventually to a reconstituted Ross Aviation. The airport is also home to one of the service provider’s TechniAir maintenance facilities.

According to general manager Gregory Gibson, since Signature acquired the 15-year-old FBO in August 2014, it has invested heavily in the 13,200-sq-ft terminal, adding a new amenity bar offering freshly baked muffins and cookies, ice cream sandwiches, fresh fruit and Starbucks coffee, and a new CSR counter, as well as refreshing the carpeting and paint throughout the entire structure. It has a pair of passenger lobbies, a large conference room and vending area, as well as 3,000 sq ft of space dedicated to crew use. The crew lounge offers full-body massage chairs, flight planning room, kitchen facilities, bathrooms and separate quiet rooms, helping the FBO earn its highest scores in passenger and crew amenities (4.70).

The Avfuel-branded location offers 147,000 sq ft of shelter in four hangars, which can accommodate the largest purpose-built business jets. The location is open 24/7 and has a staff of 35.

4.68
XJET

Centennial Airport (APA), Denver, Colo.

XJet will mark its 10th anniversary as an FBO this summer, and during that decade the flagship location at Denver Centennial Airport (APA) has been a fixture in AIN’s annual FBO survey. The location began as a membership-based private facility for local aircraft owners. Member fees covered the facility’s operating costs. It maintains that membership structure, in addition to serving transient traffic.
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Gibson noted that his customer service philosophy is to “empower our employees with appropriate authority and resources to ensure a safe, efficient and exceptional customer experience every time,” adding that one of his most important responsibilities as general manager of a “high-quality facility with a strong industry reputation,” is taking care of the people who take care of the customers.

4.66

BANYAN AIR SERVICE

Fort Lauderdale Executive Airport (FXE),
Fort Lauderdale, Fla.

Few FBOs embrace the term “full service” as wholeheartedly as Banyan Air Service, which has established its own aviation ecosystem at South Florida’s FXE. Occupying 100 acres, the facility offers virtually any service an aircraft operator might require, if not from Banyan itself, then from its tenant companies.

The Avfuel-branded location’s 14,525-sq-ft terminal sports a definite Key West flair, highlighted by one of the world’s largest pilot shops (5,000 sq ft, complete with a Gulfstream II cockpit). Other amenities are a customer lounge with an 800-gallon saltwater aquarium, business center with wireless printers, three conference rooms (the largest seating up to 25 people), pilots’ lounge, snooze room, flight planning room, a newly added duty-free shop, indoor customer car parking, customer mailboxes, a coffee/snack bar and, across the ramp, the Jet Café, all of which combined to give the FBO its highest score in the facilities category (4.72).

Possibly the most impressive statistic about the location, which is home to 450 aircraft, one-third of them turbine-powered, is the one million sq ft of aircraft storage and office space under its management. Over the past year, Banyan, which is open 24/7, with a staff of 180 employees, added another 20,000 sq ft hangar to support large-aircraft charter and aircraft storage, and office space under its management.

4.66

BUSINESS JET CENTER

Dallas Love Field (DAL), Dallas, Texas

Marking its 20th anniversary this year is Business Jet Center, one of four FBOs at Love Field. The Phillips 66-branded location, which earned top honors for the Dallas region in this year’s survey, occupies 32 acres at the airport. The family-owned business features a 33,000-sq-ft three-story terminal with an atrium; three crew lounges; a game room, equipped with a golf simulator and other amusements; three snooze rooms with full-size restroom and shower; a trio of conference rooms and a large special event room.

In the lobby, the company recently upgraded its customer service desk to a more central location, and complimentary snacks and beverages are always available not just for crew and passengers but also for any four-legged customers, who have their own designated grass area outside. Mercedes-Benz crew cars are available, and Go Rentals is on site. The location is open 24/7 and has a staff of 65, sixteen of whom are customer service representatives.

“One of my favorite sayings that our team uses is ‘big or small, we love you all,’ as is evident when a small piston aircraft arrives at our facility and receives the same top-notch service as a Gulfstream,” said Jamie Santiago, the company’s brand manager. CSRs at the location are not restricted to working behind the counter, added owner Mike Wright. “We believe it is important for our clients to be greeted on arrival by a CSR, who is also trained to marshal aircraft, so that our line-service team can focus on the technical aspects of their job and increase our overall efficiency.”

In terms of aircraft storage, the facility recently added a 31,000-sq-ft hangar, bringing its total indoor space to 250,000 sq ft. It plans to break ground this year on another 39,000-sq-ft hangar.

Heavily involved in the community through its annual charity golf tournament and Christmas program, Business Jet Center recently established a 501(c)(3) organization to better serve the community and veterans charities it benefits.

4.66

WILSON AIR CENTER

Memphis International Airport (MEM),
Memphis, Tenn.

The Wilson Air Center chain marked its 20th anniversary last year, and the facility at Memphis International Airport is the flagship of the four-location network. Well known for its 26,250-sq-ft aircraft arrivals canopy, the facility earned its highest score (4.68) in the categories of line service and passenger amenities. The 9,000-sq-ft terminal is undergoing a major renovation, which will see new and improved offerings in terms of refreshments and interior décor, as well as refurbishment of the restrooms and pilots’ lounge.

Primarily a location for transients, the Shell Aviation Fuels-branded FBO just concluded renovations on a 31,000-sq-ft hangar, now known as Wilson Air Center East, bringing the location to 100,000 sq ft of office and aircraft storage space.
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You might say that customer service is in the company’s DNA, as Kemmons Wilson, father of Wilson Air Center’s president and founder Robert Wilson, created the Holiday Inn hotel chain. The “ways of life at Wilson Air Centers,” said Wilson, are “treat everyone like you would want to be treated, customers are our family, and employees can’t say no.” He continued, “I have been blessed with fantastic employees and we work to make sure they know they are family.” He added that new staff must pass rigid standards before they are allowed to join the team fully.

Business at the location has been on the rise over the past year, according to Wilson. “The economy uptick, lower fuel cost, airline inconveniences and companies’ and individuals’ time concerns helped our operations.”

Memphis is known as a serious BBQ destination, and through its long friendship with local restaurateur Charlie Vergos and his Rendezvous restaurant, the FBO offers packages of the famous dry-rub ribs as a reward to customers with large fuel uplifts.

### Global Select

Sugar Land Regional Airport (SGR), Houston, Texas

Municipally owned FBO Global Select is the lone services provider at Sugar Land Regional Airport. A reliever for Hobby and George Bush Intercontinental, it is the fourth largest airport in the Houston area. The FBO, which was rebranded as Global Select in 2010, offers a 20,000-sq-ft terminal with onsite U.S. Customs, three conference rooms, car rental, a business center, a separate executive lounge if passenger privacy is desired, an upscale Texas-themed gift shop and a café. Complimentary Wi-Fi service is available throughout the terminal and half-million sq ft of ramp area.

Special attention was paid to the crew lounge, which provides a library, private resting areas, a theater, TV room and relaxation room with massage chairs, earning the location some of the highest overall scores in both the pilot amenities and facilities categories this year. “We strive to provide superior service with a warm Texas hospitality welcome,” said Elizabeth Rosenbaum, the airport’s assistant director of aviation. “The furniture and décor that you find in our lobby is something that you would have in your home, which makes our customers comfortable.”

Every two or three years, the location’s officials work to refresh the terminal, and recent improvements have renovated the restrooms in the lobby with new tile, countertops and fixtures, while upgrading the catering room and lobby seating areas. Planned work this year calls for an enhancement to the patios outside the terminal and renovation to the kitchen in the crew lounge. The city also added a series of seven wind sculptures up to 30 feet high, known as VorTex, at the entrance to the airport.

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The Shell-branded location has 82,000 sq ft of corporate hangar space capable of sheltering G650-size business jets, and is open from 5 a.m. until 11 p.m. daily. According to Rosenbaum, the facility saw boosts in traffic and fuel sales this year from the Super Bowl and a major oil conference held in the city.

The Avfuel-branded location, which shared the highest score (4.83) in the facilities category in this year’s survey, occupies 14 acres at the airport and offers 50,000 sq ft of hangar space, sized for aircraft up to a Falcon 2000. Over the past year, the GA-only airport saw operations climb by 12 percent, with a corresponding growth in fuel sales. The location, which is open daily from 7 a.m. to 11 p.m. with after-hours callout available, was designated last year as a Bahamas Gateway FBO; the staff of 25 is trained by the Bahamas Ministry of Tourism to assist private aviators in planning flights to and from the islands. The facility is also an approved gateway under the TSA’s DC Access Standard Security Program (DASSP) for flights headed to Reagan National Airport.

Once a week, the facility hosts a free “Fly-in Friday Hot Dog Social,” to give its customers a chance to do some armchair flying with other pilots and staff.

“Our team is passionate about general aviation, and we work to promote and advocate for its growth in the community and industry,” said general manager Jonathan Buff. “Customers appreciate that passion from our staff in every aspect of their service experience, and from flight students to seasoned flight crews, every guest receives the same high level of service and attention.”

### Meridian (TEB)

Teterboro Airport (TEB), Teterboro, N.J.

New Jersey’s Teterboro Airport is one of the nation’s main business aviation hubs, and of the six FBOs (three of them controlled by one company) at the field, Meridian ranked highest in this year’s survey, capturing the highest ratings in the Northeast U.S. among AIN readers.

The privately owned location, which has had a presence at the airport for seven decades, earned its highest approval in the CSR category, which at Meridian is led by Betsy Wines, the company’s vice president of customer service and human resources. “We have a hands-on approach to customer service,” she told AIN, adding that the company’s senior leadership often works alongside the service representatives. “I am always proudest when a customer comments on how friendly and helpful our staff is because we want them treating the customers as they would want to be treated.”

The 18-acre Shell-branded facility is open 24/7 and has a full-time staff of 205, assisted by seven part-timers. The line service staff is NATA Safety 1st trained, and the FBO expects to achieve IS-BAH certification this year.

The location provides a 30,000-sq-ft terminal, completed in 2006, with multiple conference rooms, a gym with locker rooms and private shower facilities, a pilots’ lounge with billiards table and individual workstations, snooze rooms, a business center and its crown jewel, an art-deco themed movie theater, which is also used to view major sporting events.

Given the shortage of hangar space in the region, Meridian has taken steps to respond to the demand by...
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constructing a 40,000-sq-ft hangar capable of sheltering the latest big business jets. That hangar is scheduled for completion by year-end. It also recently signed a lease on an existing 22,000-sq-ft hangar, which formerly housed AIG’s flight department. These additions will bring the facility’s hangar space to 102,000 sq ft by year-end.

**4.65**

**Addison Airport (ADS), Dallas, Texas**

The FBO, one of two service providers at Addison Airport, offers aircraft sales, management and maintenance, with the largest charter jet fleet in the Dallas-Fort Worth area. The location occupies seven acres at ADS, with an 18,000-sq-ft terminal providing a movie theater, gym, pilots’ lounge with snooze room, luxury crew cars, flight planning room, A/V-equipped conference rooms, onsite catering, onsite GTO Rentals cars, and onsite U.S. Customs to handle international arrivals. It offers complimentary bagels in the morning and warm cookies and popcorn all day.

It has 200,000 sq ft of hangar space capable of storing G650-size aircraft, and with the North Dallas area experiencing rapid corporate growth, the service provider is developing plans to construct two more hangars to accommodate future need, according to Jeff Zimmerman, the location’s vice president and director of FBO operations.

**Million Air ADS (ADS)**

The Avfuel-branded location, which has a staff of 130 and is open 24/7, received its highest rating (4.68) this year in the line service category. That score could improve in the future, as the facility is in the process of replacing ground equipment with new fuel trucks, Lektro tugs and other items. With IS-BAO Stage III certification for its managed aircraft fleet, achieving IS-BAH certification “will be a natural progression for the FBO,” Zimmerman told AIN.

With many choices in the region, exceeding customer expectations consistently is a key part of the customer service philosophy at the location. “We vow to tailor our service to the needs of each individual customer and provide the highest quality service in the industry,” said Melissa Thompson, the facility’s director of customer service. “From Valentine’s Day cards at the front counter, to ice cream socials, to welcoming our guests by name, we want everybody who walks in our door to feel like they are part of the Million Air Dallas family.”

**4.64**

**Sheltair (ISP)**

Long Island MacArthur Airport (ISP), Islip, N.Y.

Rising into the top 10 percent of FBOs in the Americas in this year’s survey is Sheltair’s facility at Long Island MacArthur Airport. The location occupies 35 acres at the airport, which is located between Manhattan and the Hamptons resort community on the eastern end of the Island.

The location, which has been part of the Sheltair network for a decade, notched its highest score (4.76) in the CSR category. “The team is committed to and genuinely cares about extending the best service possible to every guest who walks through our doors,” said general manager Patricia Junge. “We have some crewmembers who order their crew meals as the ‘usual’ and we know exactly what they require. We’re like your hometown, a place where everybody knows your name and they look forward to coming back again soon.”

The 13,630-sq-ft, two-story terminal is located near the airport’s Customs facility, and has a pilots’ lounge with snooze room, a kitchenette, complimentary snacks and beverages, a 10-seat conference room, flight planning/business center with wireless printers and WSI pilot amenities category, providing Mercedes crew cars, complimentary beverage and snack station, snooze room, a kitchenette, complimentary snacks and beverages, a 10-seat conference room, flight planning/business center with wireless printers and WSI.

**4.65**

**Indianapolis International Airport (IND), Indianapolis, Ind.**

Over the past year, the Million Air in Indianapolis has noted a brisk rise in both general aviation and charter business, with an associated 7-percent climb in fuel sales, according to Cheri Gott, the facility’s general manager. She noted that the city is not a vacation destination, so the traffic bump was a result of business-oriented traffic, with the added bonus of Vice President Mike Pence’s campaign trail operations.

A member of the Million Air chain for the past seven years, the facility is open 24/7 with a staff of 24, some with four decades of industry experience. “Million Air Indy is known for our ease in handling everything from the day-to-day transportation needs of our customers, to large special events, as well as ground handling of any size charters,” noted Gott, referring to events such as the Super Bowl, the NCAA Basketball Final Four or the annual Indianapolis 500, aircraft for which are accommodated on the location’s six-acre ramp. She added that the close proximity of the U.S. Customs facility adjacent to the Phillips 66-branded dealer’s ramp gives its staff the opportunity to serve customers with their luggage and transportation rampside immediately after clearing.

The FBO offers three hangars totaling 46,000 sq ft, which can shelter aircraft up to a GIV. The seven-year old facility notched its highest score (4.66) in the pilot amenities category, providing Mercedes crew cars, complimentary beverage and snack station, snooze rooms, upgraded flight planning area, and a theater room with stadium seating. Gott’s customer service philosophy embodies “Hoosier hospitality” to “provide a place where the genuine care and exceptional service to our customers is our highest mission.” Prospective employees must pass a rigorous process consisting of three interviews before they are hired and tasked to complete the NATA Safety 1st and proprietary Million Air training programs.

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A REFLECTION OF EXCELLENCE

TAG Farnborough Airport
Design and people working beautifully together
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“We’ve been recognized for a number of years, and this is directly attributed to our exceptional team at STP,” explained James Pederson, the location’s general manager. “Service is personalized and our staff takes great care to get to know our customers [and] their preferences and exceed expectations.” He credits the company’s proprietary “Service with a Leading Edge” training program in which every employee, from the top to the entry level, participates for keeping customer service at the forefront.

The 32-acre complex, which is staffed 24/7, has a 12,000-sq-ft terminal with a “country club” atmosphere, extending to the fireplace and board games in the lobby. It provides a pair of A/V-equipped conference rooms, a business center, kitchen, crew lounge with snooze room, shower and locker room, rampside vehicle access, private workstations, concierge, dishwashing, onsite car rental, crew cars and courtesy shuttle service. The nine-year-old facility is a DCA access location under the TSA’s DASSP program. It specializes in quick turns and provides international trash disposal as the airport offers U.S. Customs and Immigration clearance.

The FBO has 190,000 sq ft of heated hangar space and half a million square feet of ramp. Signature also operates one of its TechnicAir service locations at the airport.

FBOs around the world establish themselves as high fliers

by Charles Alcock

As seasoned international travelers are well aware, FBOs outside North America come in many shapes, sizes and standards. While facilities that would pass muster in the New World are fairly commonplace in Europe’s major business cities, they are far from ubiquitous. Local restrictions on infrastructure can undermine even the best efforts and intentions of those looking to provide the exacting levels of service private aviation operators and consumers expect.

So it is unsurprising that relatively few Eastern Hemisphere FBOs surfaced in the top 20 percent of those surveyed by AIN readers. Half of this small group of half a dozen high-achieving operations is concentrated around the UK capital London, with the others in Switzerland, Italy and Thailand.

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Good Humour in Sydney

I just wanted to convey our appreciation for your total support provided for our charter flights. There were constant changes to schedules and manifests, yet Hawker Pacific’s personnel went about their business expeditiously and with good humour, providing exactly the support required.

Barry Graham  |  Director  |  JETCORP Australia

Asian Pacific Diamond Service FBOs

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The increase in the average size of aircraft using the airport is reflected in one of TAG’s most recent improvements—the addition of a separate lounge on the top floor of the three-story, 52,000-sq-ft terminal to accommodate larger groups such as professional sports teams and rock bands. “This has been a great success, attracting more large aircraft,” commented TAG Farnborough CEO Brandon O’Reilly. “It means we can separate larger groups from other passengers, which is better for both of them.”

Another popular addition is a gym built for visiting pilots who want to keep fit while waiting for their passengers. One day, the gym had to shut for two hours for a technical problem and flight crews were soon bombarding staff with demands to re-open it. TAG uses an iPad app to gather customer feedback on all aspects of its services.

TAG has also invested time and money in being a better neighbor to the local suburban community, while offering pilots greater flexibility. As part of an airspace change proposal made to the UK Civil Aviation Authority, it hopes by next month to have permission for air traffic controllers to allow standard instrument departures that avoid routing flights over the most populated local areas. This is part of a wider green initiative under which Farnborough aims to be a carbon-neutral airport by 2019. It is one of a handful of airports that is ISO14001-compliant with an auditable environmental management system, and last year Farnborough sent no waste whatsoever to landfills. Everything was recycled or incinerated to make energy.

“The key difference is that we are the only [UK] airport dedicated solely to business aviation,” O’Reilly told AIN. “There are others that are hybrids with other activities like flying schools, but here we are completely dedicated to business aviation. The ownership of the airport and the operation of the FBO are all concentrated in one company so there is no compromise on service.”

On the edge of the 600-acre airport site, TAG owns and operates the Aviator Hotel, which has proved popular with operators and other customers. This year, the company is rolling out a service that will provide flight crew with their hotel room keys on the aircraft as they arrive, avoiding the need to check in. The FBO was one of the first in the world to achieve the IS-BAH standards for ground handling set by the International Business Aviation Council (see sidebar on page 44).

In addition to TAG Farnborough’s eye-catching terminal building, Farnborough offers 400,000 sq ft of hangar space and 1.4 million sq ft of ramp parking area. The airport is about 35 miles southwest of central London, with convenient access via the M3 highway.

On the other side of the UK capital at London Stansted, 40 miles northeast of central London, the Universal Aviation FBO (overall average survey score 4.55) was extensively remodeled in 2012. Unlike Farnborough, there is stiff competition among five established FBOs at Stansted: the others are XJet, Fayair, Inflite and Harrods Aviation.

Universal Aviation is part of trip support group Universal Weather and Aviation, and the Stansted facility is also home to the company’s European operations center. “This allows us to have a better view of the complete mission, rather than just the client’s time on the ground,” said managing director Sean Raftery. “Because we are part of Universal we have a global regulatory services team, we can support our clients with regulatory issues such as UK APD [air passenger duty] as we are a certified, registered and approved APD administration center.”

Another benefit of being part of the Universal group is the connection with sister company Air Culinaire Worldwide, which has two London-area kitchens. “We are able to coordinate last-minute catering requests,” said Raftery.

The revamped, two-story FBO offers 11,000 sq ft of space and 40,000 sq ft of ramp area immediately adjoining the building. Hangar space can be made available to operators through third-party agreements with Universal’s local partners. The building provides separate arrivals and departures lounges for passengers, a crew lounge, meeting rooms, showers and a security screening area.

Universal says its business at Stansted grew by 40 percent in the 12 months since February 2016. The FBO, which is in the process of becoming IS-BAH certified and holds NATA Safety 1st certification, has been in operation since 1984 and employs 60 staff. It expects to invest in new ground support equipment next year.

“Our job is to drive down our customers’ operating risk and reduce their stress, thereby enabling their mission success,” commented Raftery. “We achieve this by sharing their sense of urgency, understanding their unique needs and challenges, and leveraging the global resources we have available to us by being part of the Universal network. Because our global team shares information and resources, we are able to deliver a highly personal and customized experience.”

On average, members of Universal Aviation’s handling team at Stansted have served for 10 years. “I believe we are judged as a whole so each player needs to give it his all. When our customers give us feedback on our service they are considering everything from the time they call the handling request in to the timeliness and accuracy of the invoice. Every team member here is a big cog in the machine,” concluded Raftery.

On the other side of Stansted Airport, XJet London (overall average survey score 4.54) recently completed a $2 million renovation and expansion in the 94,000-sq-ft Diamond Hangar, where it has been since November 2014. The company is part of a U.S.-based group that also has FBOs at Denver Centennial Airport (see North American survey results on page 28) and in Dubai.

Interior designer Katherine Pooley was commissioned to develop facilities that now feature a pair of VIP “Mullis” suites that the company says would be suitable to accommodate heads of state and groups of up to 20 people. The location also features private en suite bathrooms, complete with showers and a changing room.

Also upgraded is the FBO’s bar, which is equipped to serve espresso coffee and cocktails. The XJet team has received barista training to use the Tchibo espresso machine.

The new conference room features a custom-designed, 12-seat table made from the cowling of a Boeing 737 engine. This room also offers a video monitor with USB and HDMI links to allow customers to show presentations during meetings.

The expansion has made room for a dedicated check-in area suitable for larger groups of passengers, and it also offers on-site security screening. There is now more space for luggage in the facility, and the main lobby features a Sony virtual-reality headset and Playstation games console.

On the ramp, XJet has a full array of ground support equipment and is equipped to handle aircraft up to the size of a 747. The company says that passengers arriving on international flights can be on their way in either a limousine or helicopter in 13 minutes. It is now upgrading IT capability to facilitate the payment process using contactless iPads that will allow payments to be processed on board customer aircraft. Wi-Fi service at the location has been boosted to improve connectivity indoors and aboard aircraft parked on the ramp.

Next on the list for an upgrade at XJet Stansted is the crew room, and customers have been consulted extensively for their preferences. Crews can also make use of XJet’s fleet of Tesla S electric cars.

The company occupies 111,000 sq ft at the site, and 17,000 sq ft of the area is lounge space. The ramp can accept a pair of 747s simultaneously, which is just as well since private examples of the A340, 767 and BBJ are all based at the FBO. During the third quarter last year, XJet expanded the “flight support concierge” and “line ambassador” teams in London in response to rising
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traffic. This summer, the company expects to bolster the UK management team and complete IS-BAH certification. The FBO has seen more bookings to support larger group charters and offers these customers their own security screening.

XJet notes that its approach to recruiting and training staff is a key service differentiator. “Our dedicated and loyal partners are what makes XJet a premium product,” said CEO and founder Josh Stewart. “They are the ones who sell our philosophy by being the best versions of ourselves all the time; they are the ones who our clients come back to see again and again.”

To be designated a “partner,” employees have to complete a 90-day training program and follow a metric system that sets performance indicators based on completing projects and setting tasks. “The partners are key to their own development in our fast-growing organization, and we love to see them surprise us with some amazing results,” said Stewart.

Thousands of miles farther east in the Thai capital Bangkok, MJets (overall average survey score 4.52) opened a new FBO at Don Mueang International Airport last September. The facility is in a 25,800-sq-ft private terminal with a 3,400-sq-ft executive lounge and offers meeting rooms and a separate area for private accommodations, on-site customs, immigration and security service. It also has a shower-equipped crew lounge and rest area, nearly tripling the size of the crew area in the previous facility, along with four conference/training rooms.

In 2015, the company became the first FBO in Southeast Asia to earn IS-BAH accreditation and it expects to complete stage-two certification in July. Since the new building was opened, MJets has added a shaded area for parking cars, providing protection from intense sunshine. The MJets facility has four separate hangars, ranging in size from 16,146 sq ft (1,500 sq m) to 32,292 sq ft (3,000 sq m). The largest hangar can accommodate a pair of Boeing Business Jets simultaneously.

The company provides training for staff, and the process is recorded and managed by a quality and safety department. Employees have twice-yearly reviews and opportunities for career advancement, with the company emphasizing the need to understand and respond to customer needs, as well as the importance of honesty and sincerity.

According to FBO director Raj Kularatana, traffic is starting to pick up after a couple of “pretty flat” years as a result of global economic factors and political instability in Thailand. Positive indicators since February lead MJets to expect 4-percent growth this year from 2016 levels.

“It looks like the existing military government has recently reached its learning curve and is running the country more effectively than before,” Kularatana told AIN. “Wider acceptance has been obtained from other countries and more confidence has been earned from foreign investors.”

Back in Europe, Eccelsa Aviation (overall average survey score 4.46) is the FBO with the highest survey score 4.47, serving the resort region of Costa Smeralda on the Italian island of Sardinia, has been operating its current facility since June 2009. The FBO’s private owners have continued to invest in improvements in the 48,400-sq-ft terminal building, such as an upgrade of the bar and coffee shop, which has been transformed into a restaurant serving local dishes. Flight crews now have a separate lounge area with dedicated computer equipment and printers. This year, it will install LED lighting in the terminal building to reduce energy consumption by 70 percent.

The terminal building has specialist stores selling eyeglasses, high-end clothing, gourmet food and wines, furniture and jewelry. This summer, the aircraft registry of San Marino and Bombardier intend to operate temporary sales offices in the facility—an indication of the clientele who frequent the FBO. During the summer, helicopter shuttle services are available.

The runway at Olbia Costa Smeralda Airport will be extended by 877 feet to 8,858 feet for unlimited Category E operations when the work is complete in 2019. Ramp space dedicated to private aviation will be expanded by a third, to 1.1 million square feet. There is hangarage for up to three Airbus Corporate Jetsliners simultaneously, and a large canopy allows passengers to board directly from the terminal.

According to Eccelsa general manager Francesco Cossu, traffic at the FBO grew by 9 percent last year, and in recent years the average size of aircraft supported has grown too. The operation employs 45 people during the peak summer season and is about to embark on the IS-BAH certification process.

Like all top-notch FBOs, Eccelsa places a strong emphasis on service to meet the expectations of demanding customers. A particular challenge of the location is the seasonal nature of the business, meaning that for the most part it can offer jobs spanning only four to six months of the year. But Eccelsa has made a virtue out of necessity in developing people with the right core skills (including English language) and by placing a strong emphasis on customer focus, problem solving and working collaboratively as a team.

“Above all, we try to teach the culture of passion for what we do,” commented Cossu. “You see, assuming that the technical and operational preparation is optimal for all, passion for what we do is the real spark that makes the difference between a good employee and an excellent company member.” Cossu commonly reminds his team of a key teaching of the Greek philosopher Aristotle: “Pleasure in the job puts perfection in the work.”

In the Swiss city Geneva, which continues to be one of Europe’s most popular destinations for business aircraft, TAG Aviation (overall average survey score 4.46) has a policy of modernizing its 7,000-sq-ft FBO every two years. The latest improvements have introduced a refurbished front desk and iPads for pilots to use in the crew lounge. The company is poised to replace its passenger transportation cars.

TAG’s facility, part of Geneva International Airport’s C3 private aviation terminal, has three VIP lounges equipped with Wi-Fi, printers, charging docks, satellite TV, snacks and beverages. The crew lounge has four workstations for flight planning and there is a separate snooze room. The FBO also offers a meeting room equipped to host video conferences, as well as a kitchen and a separate area for crew baggage.

The FBO has been open for 28 years and operates with 35 staff from 6 a.m. to 10 p.m. (with extensions until midnight possible). The facility has been IS-BAH certified since last year.

According to TAG Aviation Geneva handling manager Erturk Yildiz, the company provides all employees with a minimum of two months of training; two weeks of theory in the classroom; two weeks of practical training on service methods; and four weeks of on-the-job training. At the end of this process, TAG staff must take an exam before they can operate alone.

“The recruitment process is important,” said Yildiz. “If we don’t recruit the right service- and customer-oriented people we will be continuously busy resolving problems they create. We’re looking to reach an excellent level of service because our competitors can provide ‘good’ or ‘very good’.”

Traffic Numbers Bode Well for Europe

European business aviation traffic has picked up over the past three months, according to air traffic management agency Eurocontrol, with year-on-year monthly growth of 3.8 to 6.4 percent between last November and the end of January this year. If sustained, this trend would be welcome in a continent that for the 12 months up to January this year had seen overall growth of only 0.6 percent: 664,678 movements versus 660,572 in the same period a year earlier. Overflights declined by 10 percent, so, relatively speaking, there was more growth involving movements that arrived at or departed from a European airport.

—C.A.
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Several chains are new kids on block

by Curt Epstein

With all the consolidation among the service provider chains in recent years, the industry is not lacking available veteran FBO management talent, and not surprisingly many of those displaced by acquisitions have returned to what they know best: assembling and managing groups of FBO locations. Over the past year, several fledgling chains were announced and have begun snapping up locations in a bid to reach critical mass.

Some of these chains, such as the Lynx FBO network, which debuted in September with the purchase of Florida’s Destin Jet Center, are supported by private-equity money. Backed by middle-market investment fund The Sterling Group, Lynx has since acquired Aurora Jet Center at Portland, Ore.-area Aurora State Airport, as well as both FBOs at Anoka County-Blaine Airport in Minneapolis. Greg Elliott, a partner at Sterling, served as the chairman of the Encore and Trajen FBO chains and was a board member of Landmark Aviation. Lynx’s partners, Chad Farischon and Tyson Goetz, were formerly members of Trajen, Atlantic Aviation and Landmark management teams. “As industry veterans we provide a unique opportunity in using our experience to build a network that will deliver an enhanced customer service experience,” Farischon told AIN. “We bring a perspective of working for both a small chain and a large chain and we bring the processes and standardization that a large chain can present but have the nimbleness of a small operator.”

Part of Sterling’s $1.25 billion Fund 4, Lynx says it has a long-term vision for establishing a new network. “We have plenty of capital to look at all opportunities with a long runway for growth, pur intend,” said Farischon. The company sees “plenty of opportunities” among available FBOs, which could fuel its rapid growth. “We’re targeting having 10 locations by the end of the year; we’re aggressive right now.”

In March 2014, Atlantic Aviation’s parent company, Macquarie Infrastructure, acquired the seven locations of the 20-year-old Galaxy Aviation chain, and this January several former executives of Galaxy launched Stellar Aviation with the purchase of Horizon Aviation at Abraham Lincoln Capital Airport in Springfield, Ill. “Several quarters of data show that aircraft utilization is up, and that is key for us,” explained Brad Kost, Stellar’s COO and former executive vice president with Galaxy Aviation. “It’s a good indicator that maybe now is a good time to start building infrastructure and start building our network.”

Despite its executives’ experience with locations at large airports in Florida, the privately funded company said it will concentrate its efforts on tertiary airports, mainly in the Midwest U.S. “Everybody wants the primary location on the East Coast or the West Coast,” Kost told AIN. “We’re probably not going to have the resources that [the major chains] do to acquire assets, so we probably will not be in some of the high-density locations at the primary airports.”

He noted that the influx of private-equity money into the sector has driven up the asking prices of some independent FBOs to the point that it is unrealistic to expect them to be able to support themselves, and they might be affordable only to a major chain. “We’ll go into some areas and be disappointed when we see the multiple get bid up so high on the business over earnings that the facility cannot be a sustainable independent location,” said Kost. The company plans conservative growth of one or two locations a year, he said, adding that “each location has to stand on its own.”

While he agrees with the label “buy and build,” Kost said that’s not Stellar’s game plan. “A couple of companies have put together five or six years’ worth of infrastructure, then turned around and sold it, got back in and done the same thing. We’re looking for long leases because we want to be there for the next few decades.”

BUY, BUILD AND SELL

One person who has experience with the assemble-and-sell business model is Jeff Ross, one of the industry’s master FBO traders. In 2014 he sold the 10-year-old Ross Aviation chain of 19 locations (all under individual names) to Landmark Aviation. Before starting the chain, he assembled a group of four FBOs, which he sold individually. When Signature Flight Support acquired Landmark, the U.S. Department of Justice mandated that Signature divest six of the former Landmark locations to satisfy competition requirements. Private-equity firm KSL Capital Partners acquired those six locations and tapped Ross to run them as a reconstituted Ross Aviation.
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“A whole lot of people, fueled by private-equity firms, really want to get into the business,” said Ross. “The problem is not the availability of money; the problem is finding attractive investments that we think we can make more valuable.” Current discussions suggest to Ross that his company will add several locations over the course of the year, as KSL has the financial clout to surpass Ross’s previous FBO total. “That will not be the limiting factor,” Ross told AIN. “The limiting factor will be finding good investments.” As those “good investments” arrive on the market, competition for them is certainly a factor, as new market entrants and existing chains place their bids. “There are several companies that are smart, experienced, have got money and are out there competing with us to buy the next available FBO,” said Ross. “Hopefully, we are half a step ahead of them; but if we are, it’s only half a step.”

As for how long Ross Aviation will remain a separate entity in the FBO industry, Ross is uncertain. “That will be determined by how successful we are in acquiring and operating the FBOs,” he explained. “I suspect that by the time we look to exit in five to ten years, someone else will be out there anxious to get a hold of us.”

MORE RETURN PLAYERS

Another name making a comeback as an FBO chain is familiar to the industry because it never really left. The Odyssey Aviation brand consisted of two separate companies, one Bahamas-based, the other on the mainland U.S. In 2011 Landmark Aviation approached Ken Allison, who owned the U.S. group of seven FBOs, and made him an “an offer he couldn’t refuse.”

Even after the sale, as Allison went to work for Landmark, he told his former Odyssey partner, Seven Kelly, that he probably wouldn’t be gone long. Deciding he missed the FBO ownership business, Allison partnered with two other industry veterans to form the Quantem FBO Group. That entity acquired the former Ranger Aviation FBO at Florida’s Kissimmee Gateway Airport in 2015, added the Active Aeron location at Detroit Willow Run Airport last year, and in February announced its reintegration into the Odyssey Aviation chain.

While the company is committed to rebuilding a U.S. network, Allison and his partners, who see this as a family business to be passed along to their children, are not certain how big they want to get. “When we got to seven, we got big in terms of the staff needed to run it. With three guys, I think we could get to 10, but I’m not sure we want to,” Allison told AIN, noting that he expects to add another location to the brand this year. “We’d rather have five good ones than fit our profile. We’ve looked at probably 25 FBOs for sale and passed on a lot of them.” When it comes to buying an FBO, sellers do not always select the buyer with the biggest offer, Allison has noticed. “For a lot of people who started FBOs, they appeal to.”

AIN asked survey respondents to identify specific FBO employees or teams who routinely go above and beyond when it comes to customer service. Below we have highlighted 20 individuals who were repeatedly recognized in this year’s responses.

<table>
<thead>
<tr>
<th>Person</th>
<th>FBO</th>
<th>AIRPORT CODE</th>
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<tbody>
<tr>
<td>BETSY WINES</td>
<td>MERIDIAN TETERBORO</td>
<td>KTEB</td>
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<tr>
<td>BEVERLY PATTON</td>
<td>SHELTAIR</td>
<td>KFLL</td>
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<td>BRIAN BOURBEAU</td>
<td>PREMIER JET CENTER</td>
<td>KFCM</td>
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<tr>
<td>CHRISTIAN WILLIS</td>
<td>HAWKER PACIFIC FLIGHT CENTRE</td>
<td>YSSY</td>
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<tr>
<td>CINDY HAYDEN</td>
<td>MILLION AIR</td>
<td>KSUS</td>
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<td>CRYSTAL HIBBARD</td>
<td>SHELTAIR</td>
<td>KECP</td>
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<td>TAG AVIATION</td>
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<td>FIONA LANGTON</td>
<td>XJET</td>
<td>EGSS</td>
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<td>ECCELSA GENERAL AVIATION</td>
<td>LIEO</td>
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<tr>
<td>HOLLY HOPKINS</td>
<td>TEXAS JET</td>
<td>KFTW</td>
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<td>AMERICAN AERO</td>
<td>KFTW</td>
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<tr>
<td>JEBID TOPOUZIAN</td>
<td>SIGNATURE FLIGHT SUPPORT</td>
<td>CIUL</td>
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<tr>
<td>JULIE SILBERMAN</td>
<td>SHELTAIR (FORMERLY TAMPA INTL JET CENTER)</td>
<td>KTPA</td>
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<tr>
<td>KRISTA NIKFOROS</td>
<td>BANYAN AIR SERVICE</td>
<td>KFXE</td>
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<tr>
<td>LOIS HERNANDEZ</td>
<td>FONTAINBLEAU AVIATION</td>
<td>KOPP</td>
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<td>LUIGI BARRANGAN</td>
<td>ORION JET CENTER</td>
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<tr>
<td>MARY KAY</td>
<td>WILSON AIR CENTER</td>
<td>KHOU</td>
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<tr>
<td>MELISSA THOMPSON</td>
<td>MILLION AIR</td>
<td>KADS</td>
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<tr>
<td>NICK RUST</td>
<td>UNIVERSAL AVIATION</td>
<td>EGSS</td>
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AIN’s FBO Survey by the Numbers

<table>
<thead>
<tr>
<th>AIN’s FBO Survey by the Numbers</th>
<th>Cumulative</th>
<th>Last 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of FBO evaluations provided by all respondents</td>
<td>33,242</td>
<td>7,669</td>
</tr>
<tr>
<td>Number of respondents who evaluated at least one FBO</td>
<td>7,805</td>
<td>3,133</td>
</tr>
<tr>
<td>Number of FBOs evaluated by at least one respondent</td>
<td>2,189</td>
<td>913</td>
</tr>
<tr>
<td>Highest number of evaluations received by one FBO</td>
<td>406</td>
<td>255</td>
</tr>
<tr>
<td>Number of FBOs that received the requisite number of evaluations (30) to be eligible to have an overall average displayed</td>
<td>241</td>
<td>22*</td>
</tr>
<tr>
<td>Number of countries having FBOs that were evaluated</td>
<td>95</td>
<td>62</td>
</tr>
</tbody>
</table>

IS-BAHsteadilybecomingstandard forground handlers

“achieving the standard is not easy,” Yeomans said. “It is a challenge, but those taking the lead in this important safety initiative would not want it any other way. Their efforts should be applauded and recognized as a huge leap toward a safer and streamlined ground handling process.”

IS-BAH certification has many benefits for FBOs and BAHAs. According to NATA’s official website, IS-BAH can help improve a facility’s operational safety through both predictive and proactive methods. Through the use of an integrated management system and a focus on teamwork, FBOs/BHAIs may see improved efficiency as well as reduced insurance rates.

Any FBO or BHAH can become an IS-BAH registered facility by following these initial steps:

• Purchase the IS-BAH Manual, which contains the standards (13 chapters) and the IS-BAH implementation guide.
• Conduct a gap analysis between your organization’s standards and procedures and those of the IS-BAH program.
• Develop procedures to identify hazards and eliminate the quantified risk or reduce it to acceptable levels using guidance material provided with the standard.
• Integrate procedures into department systems, programs operating procedures and manuals, again using materials provided.
• Complete an IS-BAH audit by selecting an accredited IS-BAH auditor from the IBAC website.

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FBOs catching up in safety-program push

by Sean Broderick

Flight departments are sharpening their focus on improving safety throughout their operations, embracing programs such as corporate flight operations quality assurance (C-FOQA) and International Standard for Business Aircraft Operations (IS-BAO). But one area remains overlooked: FBOs.

“FBOs perceive little value in investing in additional safety and risk-reduction measures because it’s not going to change the customers’ behavior,” said Mike France, NATA’s managing director for safety and training. “Operators are not choosing FBOs for their safety performance.”

**SELF-IMPOSED IMPROVEMENTS**

France bases his view, shared at the recent Air Charter Safety Symposium, on conversations with FBO personnel as part of NATA’s training development efforts. While prospective customers grill FBOs about fuel prices and amenities, he noted that topics related to safety and training programs never come up.

“If FBOs are not being asked about safety,” France said, “they are going to focus on what they are being asked about.”

It is not as if business aviation is oblivious to the risks and costs of ground operations. If anything, the opposite is true. NBAA’s Safety Committee listed ground collisions as one of its top issues in 2015 and last year, noting that they are “on the rise” and result in “significant costs.”

Insurer AirSure calculates the average cost of a business-aviation ground mishap at about $130,000. FBOs might not feel pressured to boost safety efforts, but some are doing so anyway. The number of locations with International Standard for Business Aircraft Handlers (IS-BAH) credentials reached 58 by the end of last year, climbing from just 13 at the start of the year. Another seven signed on in the first two months of this year.

A set of best practices with a safety management system at its core, IS-BAH is built on the same principles as the popular IS-BAO program for business aircraft operators.

“We are at a tipping point with IS-BAH,” said B.J. Goodheart, AirSure’s director of aviation safety and claims management. “I had maybe four phone calls last year to do an IS-BAH audit. I had four the first week of this year.”

IS-BAH’s expansion is encouraging, France and Goodheart acknowledged, but they emphasized the onus is on operators to advocate for FBO safety. Among their suggestions: develop a set of questions for flight crews, dispatchers or flight planners to ask FBOs. While the questions can vary, two must-cover topics are training programs and measuring safety performance.

“It’s a really telling question,” Goodheart said of the performance query. “’We haven’t broken an airplane yet,’ is always good to hear, but safety is about much more than preventing major mishaps.”

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FAI rent-a-jet has sold its last Learjet 35A to Rescue Air Ambulance in Mexico. FAI flew four 35As, beginning in 2001, and they logged 38,000 hours. FAI has seen growing demand for larger cabins, but several factors drove the company’s decision to stop operating the jet: the need for different type ratings, maintenance costs and parts availability. “Today is an emotional day,” said FAI founder and chairman Siegfried Axtmann. “The 35A was our first Learjet and served as the engine for the company’s growth in the field of air ambulance. I hope it will perform many happy landings for its new owner.”

Delta Private Jets has added five jets to its fleet: a new CJ3+ based in Las Vegas, a Citation XLS and an XL (both part of the floating fleet), a Learjet 45XR based at Opa Locka near Miami, Fla., and a Sovereign.

Elit’Avia is marking its 10th anniversary. Headquartered in Sliedrecht, the charter management company manages 23 jets, ranging from a Hawker 800 to Falcons (7X, 2000S and 50EX), Challengers (605, 604 and 300), Globals (6000 and XRS) and Gulfstreams (G650, G550 and G450).

Coleman Aviation’s charter operation, Coleman Jet, has added a 2006 Nextant 400XTi to its Gary/Chicago Airport-based fleet. The company also operates a GIV and Challenger 601 based at Gary and a Learjet 55 in Fort Lauderdale.

The UK’s CAX has granted extended range twin-engine operations (Etops) approval for TAG Aviation’s ACJ319. The aircraft has 19 seats in the cabin, and the Etops approval allows it to fly more direct routes on long-distance trips.

—M.T.
restructuring, saying only that a “national discussion” was needed to identify the best way forward for system modernization. But she also said that she believed the President would examine the issue.

Airline Support

On February 9, Trump hosted a White House meeting with airline and airport executives, who came away encouraged that he appeared to support their priorities.

Several airline executives reiterated their position on the issue during a Chamber of Commerce Aviation Summit on March 2. Among those expressing support for such change were Alaska Airlines chairman and CEO Brad Tilden, American Airlines chairman and CEO Doug Parker and Airlines for America president and CEO Nicholas Calio. Parker stated his belief that the change would open ATC to better financing options and said, “We have an ATC system that pales [in comparison] to others around the world.”

Tilden warned, “We run a real risk and likelihood that demand is going to grow at a faster rate than technological advancement,” while Calio promised that reforming ATC can make air travel more affordable and efficient.

But perhaps the most impassioned call for reform came from former American Airlines chief Bob Crandall, who charged that general aviation should “set aside paranoia and support a change that would have major favorable impact on this country.” He stressed that the change has been successful everywhere else in the world, but he also acknowledged that corporate aircraft operators may have to pay a fee at high altitudes “instead of the free use they enjoy today.”

Universal Industry Opposition

NBAA president and CEO Ed Bolen was a lone voice to speak in opposition during the summit, stressing that business aviation supports and is actively involved in forwarding NextGen, but that “We don’t want to be sidetracked by a lot of ideas that have been around for a long time.” Bolen added, “the fundamental question is who is going to control the system and whose benefit does it serve. We don’t think the public airspace ought to be managed by a board of special interests.”

After the White House released its proposal, Bolen reiterated business aviation’s opposition and his warnings on the effect it would have on the small towns and the general aviation industry. “Simply put, privatization of the ATC system would benefit airlines at the expense of the citizens, companies and communities that rely on general aviation,” he said.

The large airlines have pushed the notion of privatizing ATC for decades, he said. “Under such a proposal, the ATC system—which is a natural monopoly that currently serves the public’s interest, and is overseen by the public’s elected representatives—would be turned over to a non-governmental entity effectively controlled by the airlines.

“Under such a scenario, the small and midsize towns that rely on access to general aviation for everything from civil services, to emergency support, to business access and more, could have their access to airports and airspace threatened.”

The General Aviation Manufacturers Association (GAMA) agreed with that contention, saying in a statement: “The FAA air traffic control system is the safest, most efficient, largest and most complex in the world. To a degree not found in other countries, the economic health and

Bizav to fight restructured ATC

Continued from page 1

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Operators take advantage of myriad opportunities fuelers provide to help keep costs in check

As business aviation continues its slow rebound from the economic downturn that began nearly nine years ago, the number of operations in the U.S. has been climbing since 2010 and, according to industry data provider Argus, business aviation logged gains in flight activity for 11 of the 12 calendar months last year. For the year, flights were up 3.2 percent and flight hours were up 3.8 percent over 2015.

Against this backdrop, the price of jet-A last year was the lowest in a decade, averaging $3.31 a gallon nationwide (25 cents less than in 2015), according to industry fuel data provider Fuelerlinx. The decrease corresponds with data from the U.S. Energy Information Administration, which shows a 30-cent year-over-year decline in the refiners’ wholesale per gallon price for U.S. kerosene-type jet fuel, which at an average of $1.29 a gallon was the lowest in a decade. “Last year’s cheap prices, whether for gasoline, diesel or jet fuel, were the lowest since 2004,” said Tom Kloza, global head of energy analysis and chief market analyst for World Fuel Services. Most FBOs offer some form of a discount, decided by volume, contract or home-based supply. Indeed, at some locations the fuel provider might inflate the pump price in expectation of haggling over price; at other airports, where the airport authority may be in charge of fueling operations, the price is the price.

Among the most important innovations in the aviation jet-A industry was the advent of contract fueling, a system that leverages the buying power of millions of gallons of fuel. “With a contract-fuel program, operators can obtain the least expensive jet fuel from various supplier-branded locations and different fuel providers,” said George Guirgis, director of contract fuel at Port Arthur, New Orleans or Corpus Christi, so that’s the one thing that could temporarily send prices sky high.”

The current political climate in Washington is another wildcard as lawmakers have floated the idea of an import fee on foreign products, including oil. If enacted, the tax could tack on an extra $10 to $12 a barrel, Kloza noted. The increasingly adversarial rhetoric toward Iran, and the possibility of new sanctions, could also affect global petroleum prices. “You never know,” said Kloza. “The one predictable thing about this administration is its lack of predictability.”

Despite the lower price of fuel, corporate budget cutting brought on by the downturn has made flight departments more cost-conscious than ever. “Operators are noting the discrepancy in price across the globe,” said Jonathan Boyle, Avfuel’s vice president for contract fuel. He noted that variables in fuel price typically can be distilled down to location, whether because of transportation costs to a remote area, local taxes and fees, or the costs of the operation pumping the fuel.

How customers purchase fuel has changed immensely over the past three decades, driven by innovations in technology and aircraft efficiency. While it was once a given that an airplane landing at an airport would require fuel, with today’s more efficient aircraft, other factors now come into play when crews decide when and how much fuel to take on. “We’ve noticed that flight departments are taking into account more variables when purchasing fuel quantities,” noted Jessica McClintock, client relations manager with California-based Fuelerlinx. “For example, the cost of carrying fuel and/or minimum uplift amounts to avoid ramp fees.”

Uncertain Conditions

Despite his prediction, Kloza noted there are always wild cards. The oil-rich Gulf Coast has escaped hurricanes causing infrastructure damage since Hurricanes Katrina and Rita in 2005. “If you believe in ‘due,’ you might say we’re overdue,” he told AIN. “There hasn’t been a substantial change in infrastructure where we’ve put aside some reserves or we’ve got a backup plan if a hurricane were to come ashore at Port Arthur, New Orleans or Corpus Christi, so that’s the one thing that could temporarily send prices sky high.”

The price for benchmark WTI crude was $42 per barrel last year, and while that was modestly more expensive.”

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of Universal Weather and Aviation’s UVair program. “Business aircraft operators do not have to contact multiple fuel providers and do not need to maintain a number of different credit lines with various oil companies and fuel providers.”

He added that contract fuel programs arrange fuel credit worldwide, either with aviation fuel cards such as the UVair card, often accepted at point of sale, or by fuel release when necessary. Some programs even assist operators in gaining exemptions or refunds on value added tax (VAT) and excise duties on fuel. “Our focus is not just competitive pricing,” noted Guirgis. “It’s also making sure the operator understands all fuel-related costs involved.”

Some providers, such as Phillips 66, do not require fuel cards or fuel releases from their customers, who purchase fuel directly from the refiner itself. The company first offered contract fuel to airlines, cargo and other services four decades ago, and finally began offering contract fuel for both jet-A and avgas to corporate and charter operators last year.

While there are many such programs to choose from, operators should compare them to see which provide the best coverage in the areas most frequented. “Customers need to choose programs that best fit their individual requirements,” suggested Julio Casas, AirBP’s general aviation director for North America. “For example, a customer who owns a PC-12NG has needs different from those of an owner with five Globals.” Customers should consider what sort of missions they will be undertaking before selecting a provider, he added, and compose a wish list of what they want from a fuel supplier. “A customer should match that list against which supplier has the most reliable, safe technical support and ability to respond when needed,” he said.

“For day-to-day operations, it is important to use one that has the supply and financial strength to cover the globe no matter where you travel,” added Szczesniak.

Most in the industry suggest cultivating a core group of providers that serve their needs in the majority of their destinations. “We’ve noticed that many operators are looking to limit the number of fuel providers they work with to get better pricing and expand their volume discount with those providers,” said Jonny Eskander, sales executive with AEG Fuels.

While most major fuel providers offer customer loyalty programs enabling users to translate their frequent use and volume purchases into rewards, clients should always have an eye on the bottom line. “One word of caution for flight departments: contract fuel pricing can be a double-edged sword,” warned Connie Pierpoint, Epic Fuels’ vice president of client services. “Price offers from some providers and resellers may seem to be lower than posted fuel prices, but be sure to check all of the fees. Various suppliers add on a margin on the back end.”

Technology Advances

Widely lauded are the recent innovations in information technology and communications that allow customers to access current fuel pricing. The industry has come a long way since the days when a phone call was the only way to determine fuel costs at a destination. Flight departments today have many resources at their fingertips to review pricing, through accounts direct from the fuel providers or through fuel pricing consolidators such as Fuelerlinx, which take into account all of a customer’s specific fuel pricing from numerous providers and even can provide advice on tankering by factoring in ramp fee avoidance and multi-leg pricing. “If done correctly, technology should act as a tool for greater productivity and access to all participants in the fuel buying process,” noted company president Kevin Moller.

“But it’s not just the individual flight fueling purchase that is improving. “On the analytical side, the technology is changing hugely,” said James Kossick, fuel manager with UK-based flight support provider Flightworx, which offers an independent and neutral fuel comparison and procurement service. “People are coming up with these fantastic new platforms that really analyze your fuel costs, your landing costs, the whole package, and tell you where you’re over- and where you’re doing well, and I think it can only benefit the industry.” He noted that his company will provide fueling advice for far-flung regions, even to non-customers.

The major providers are consistently improving their customer offerings and services. World Fuel Services recently simplified its contract fuel program, which is now supported by the World Fuel/Colt Card, and enhanced the FlyBuys Rewards website. The site offers more rewards options across 145 countries and it allows users to donate points to the charity of their choice if such rewards are not permitted by corporate policy.

AirBP, which acquired a stake in trip-support company RocketRoute, assisted in the development of a fuel app that was launched last year. Beyond simple payment, it allows AirBP’s Sterling Card holders to offset carbon emissions of the fuel purchased.

In February, Epic Fuels was selected as the issuer of the new Signature Flight Support Aviation Card, which will be accepted at all Signature and Epic-branded FBOs. The new card has added the option for cash rewards or gift cards to the Bravo loyalty program.

Ann Arbor, Mich.-based Avfuel retooled its Avtrip rewards program this year to incorporate tiered membership that considers fuel uplift and FBOs visited. In the base silver tier, customers will earn rewards as they had previously. Customers who reach the gold and platinum tiers, through greater fuel uplifts at participating locations or by visiting more unique Avtrip FBOs, receive more points per gallon.

Shell Aviation distributor Eastern Aviation Fuels noted it will soon be introducing a co-branded fuel card with U.S. Bank Multi Service Aviation and has seen continued growth in the Shell AeroClass loyalty program.

Phillips 66 added that some of the branded FBOs that participate in its WingPoints customer rewards program will issue points on contract fuel transactions.
Business aviation operators, flight training providers and aircraft manufacturers were represented among the 165 exhibitors and sponsors participating in the 2017 International Women in Aviation Conference, and with good reason.

“I think there is a general feeling, attributed partially to the new administration in Washington, D.C., that there is about to be an uptick in orders...so aircraft manufacturers here at the conference are hiring workers,” Dr. Peggy Chabrian, president and co-founder of Women in Aviation International (WAI), told AIN. “Major airlines have been coming to WAI for the past four years and hiring WAI members in significant numbers,” she remarked, “but this year the companies accepting résumés seem to be more diverse.”

WAI is a membership organization created in 1994 as a networking, outreach and educational tool meant to boost diversity in aviation, and the composition of the crowd at this year’s event suggests the mission is succeeding. Some 4,500 of the organization’s 14,000 members journeyed to the Coronado Springs Resort at Walt Disney World early last month. The annual event enables attendees to network with human resource professionals and recruiters who are searching to fill positions from aviation maintenance to assembly line, dispatch and scheduling to flight and cabin crew, and many management positions in between.

The three-day conference began with two days of group hiring briefings and individual interview opportunities with a half a dozen airlines and corporate charter/franchised operators, before segueing into 50 educational and professional development sessions, networking events, teacher and student outreach activities, AOPA “Rusty Pilot” and “Learn to Fly” seminars and the organization’s traditional scholarship award and Pioneer Hall of Fame induction banquet.

This year, defined “tracks” made it easier for attendees to identify seminars and professional development sessions that aligned with their interests. Before the affair was over, WAI awarded 120 scholarships, from cash awards to jet type rating and maintenance training, valued at $640,000. Among the keynote speakers were AOPA president Mark Baker; retired Marines Cobra pilot and author Vernice Armour; Jenette Remos, v-p and general manager of fabrication at Textron’s booth represented Bell Helicopter and TRU Aerospace brought pilots to WAI to both inspire and inform. “We are here because this magnitude of conference attracts top-notch aviation talent, and we are hiring that talent,” said Genitha Singleton, staffing operations manager for Gulfstream in Savannah, Ga. Singleton is currently looking for pilots and technicians to fill the company’s needs into the summer.

“We are also exposed to a lot of students here,” explained Carmen Smoker, recruiting analyst in talent acquisition for the company, located in Savannah, Ga. “Those students are the future,” she went on to say. “It is why the company comes back, to stoke that talent.”

A dozen large corporate flight departments sent representatives to the conference for career development and, according to a few, to network for future growth. Walmart was one of few that actually staffed a booth in the exhibit hall. Dan Williams, that company’s flight department v-p of global travel and aviation, told AIN, “Our women pilots recognized that relationship recruiting and networking is important and first brought us to this show in 2000. We came to this conference because we felt we should, as a good corporate citizen representing the business aviation community. At the time we were filling a vacuum here where corporate aviation should have been,” he explained. “Walmart is generous to us, letting us come here and develop relationships. We bring these pilots into our internship program and eventually hire tremendous talent out of this show.”

New to the conference this year was Amazon.com, which was hiring for locations in Washington (Seattle) and Ohio.

“We are filling out our flight department, hiring business analysts, carrier program managers, principal products managers, airframe program and engine managers, quality assurance managers, network operations supervisors and more,” said Katie Hall, recruiter for the company, which currently leases 40 aircraft from Atlas Air. “We realize WAI is a great networking event for us.”

Pratt & Whitney’s Mary Anne Cannon, v-p for commercial programs in Hartford, Conn., noted, “Most of the women we bring are not in customer-facing positions, so the conference is a place where they can interact with the users of our product.” Cannon also brought HR to the event, recruiting logistics and safety professionals, mechanics and engineers.

Texton’s booth represented Bell Helicopter and TRU
Simulation. "We are welcoming 300 interns this summer into the company in sales, engineering and flight operations and we are talking to some of them here at the show," a spokeswoman told AIN. "It is a great opportunity for us to get in touch with the aviation community as a whole, because of the diversity here," she continued.

Operators PlaneSence, XOJet, Desert Jet and NetJets, among others, were taking résumés for maintenance, cockpit and cabin crew positions. In the middle of the exhibition hall attendees had the opportunity for one-on-one résumé advice from hiring professionals within the airline and corporate world. Several corporate aircraft operators noted a dearth of interest in corporate cabin crew positions at the show, suggesting that the organization could do a better job getting the word out that opportunities for networking exist at WAI for flight attendants and flight technicians, as well.

Sister organization Women in Corporate Aviation (WCA) celebrated its 25th anniversary at WAI 2017, holding its annual meeting and electing new officers at a luncheon during the conference. Incoming WCA president Cindy Youngblood, a contract corporate jet pilot, was awarded the WCA Career Scholarship, presented by WCA v-p Paige Kroner. The group was well represented on the Corporate Aviation Career educational panel, led by corporate pilot and A&P Ava Shubat.

Also represented on the panel was the Association for Women in Aviation Maintenance (AWAM), which celebrated its 20th anniversary during the WAI conference. Both WCA and AWAM provide dozens of scholarships and awards for professional training and continuing education for all aspects of business aviation. WCA will award more scholarships at the NBAA Convention in Las Vegas, Nev., October 10-12 this year.

Aviation Personnel International (API) president and CEO Sheryl Barden offered attendees a bit of sage career advice: “Business aviation is a small unit of any corporation. For those of you interested in not just doing the same thing every day, business aviation is for you. You are constantly upgrading—airplanes, avionics—getting to work with the best technology that goes into aircraft. The training quality is amazing, and the long-term compensation is more competitive than you might believe, as well. If you are a self-starter then you will thrive in corporate aviation’s performance-based culture.”

Her opinion of a good candidate for one of her clients’ positions: “It is tough for the flight department to hire someone who doesn’t have enough hours or the skills for the job yet. They don’t have the depth to develop the pilot. But if someone takes time say, with the regionals, and gets the jet experience, that sets them up well for the position,” she said. The regional airlines she spoke of were Republic, Envoy, Empire, Cape Air, Silver Airways and Ameriflight, beside United, American, Delta, Allegiant, UPS, FedEx, Atlas Air, Kalitta Air, Sun Country and Spirit in the exhibit hall, all of them hiring into entry positions in dispatch, flight, ground ops and maintenance. Flight training providers such as CAE, FlightSafety and AeroSim kept up a brisk conversation with potential CFI applicants until the hall closed.

NBAA’s director of educational development and strategy, Jo Damato, leading a panel discussion on finding mentors in aviation, encouraged attendees to volunteer in the industry. “You can develop skills you might not get elsewhere and you will meet people who could turn into mentors for your career,” she said. “We want you to leave this conference feeling like you have the tools and the know-how to launch on your path.”

WAI announced the relaunch of its formal mentoring program, offering a web-based approach to finding a mentor via the members-only section of the website, as well as at upcoming WAI Connect events and WAI’s website, as well as at upcoming WAI Connect events and WAI’s www.ainonline.com • April 2017 • Aviation International News 51
Event provides strategy for changing landscape

by Amy Laboda

NBAA held its annual two-day Business Aviation Finance, Registration and Legal conference last month in Bonita Springs, Fla., and the event concluded on an upbeat note. “Things appear to be getting better,” conference co-host and Citi Private Bank Global Aircraft Finance head Ford von Weise told AIN. “I think we are at an inflection point where aircraft have become such great values that people who are traditional value opportunists can no longer sit on the sidelines because we’ve never seen [prices] this low. If you combine that with the macro-economic trends, it bodies well at least for the short term and hopefully for the long term,” he continued.

The event included a series of seminars and panel discussions that ranged from aircraft financing trends to federal taxes (and how to avoid them), complicated structures for purchasing and owning corporate aircraft to digital signatures and the federal registry, business jets and emissions requirements, changes in the international registrar for aircraft, import/export aircraft procedures, aviation insurance coverage and claims and even UAVs.

The conference’s business aircraft finance panel presented a mix of bankers and financiers from companies backed by private-equity firms, the first time von Weise has seen that in his 17 years in the business. “Basel III international banking reform has focused the banks to lend money to the clients with the best credit, who happen to be clients who really don’t need the money but use the bank’s products as a way to optimize their balance sheets,” he explained.

Sam Harris of Jet Lease Capital said, “Before the financial crisis 60 to 70 percent of aircraft were financed, but that’s flipped.” He continued, “Now more borrowing is beginning to happen again, I believe, and there is plenty of capital available.”

Representing one of the busiest lenders in the business, Wayne Starling of PNC Aviation Finance countered von Weise’s description of bank lending. “Fifty percent of our 150 transactions a year still come from non-bank customers,” Starling said. “We may do a loss-leader loan for the right bank customer, and that is where Basel III comes in. But we are an aggressive transactional lender. We ask, ‘Should we do the loan, can we do the loan, and is this a client we want to have a relationship with?’”

Don Walsh, v-p of Stonebriar Commercial Finance, explained private-equity financing. “We are not unregulated—just regulated differently from a bank. Our biggest opportunity at present is the international market, where the buyers might not have a lot of bank options,” he continued.

Regulations Explained

The conference focus then shifted to FAA regulatory procedures dealing with aircraft transactions, including how to set up non-citizen trusts and changes in the FAA Registry procedures, zeroing in on acceptable documents and particularly the intricacies of digitally signed documents.

“U.S. law is clear: a digital signature is acceptable, but you’ve got to make sure that the document is legal under the laws of the land where you are executing the deal if it is outside the U.S.,” cautioned Frank Polk, attorney for McAfee & Taft in Oklahoma City, Okla.

Rounding out the conference was a panel on regulations designed to discourage and prosecute the application of non-consensual liens on aircraft led by Rob Cowan, managing director of Aviareto, which operates the International Registry of Mobile assets under the Cape Town Convention. Cowan indicated that changes in the procedures for registering non-consensual liens has led to a significant drop in nuisance liens that can cloud aircraft titles and complicate transactions.

Mary Ann Townsend, an associate with A+L Goodbody of Dublin, Ireland, detailed the new features of the Registrar, among them an online Closing Room where digital documents can be signed securely and a sophisticated search function to help lawyers research liens.

“The first phase of Generation III of the Registrar is expected to roll out this July,” said Townsend.

Next up was a review of best practices for importing or exporting an aircraft in the U.S., well attended because of a marked uptick in aircraft that were sold and exported during the recession, which are now being re-sold and re-imported to the U.S. Key to the discussion was the importance of sending your own Designated Airworthiness Representative (DAR) to inspect the aircraft, no matter its location, to ensure it will qualify for an FAA certificate of airworthiness. “Consider it a pre-buy inspection,” said James Meyer, of Harper Meyer in Miami, Florida. From there the conversation—and it was an exchange, with lots of audience participation—turned to jurisdictions regarded as challenging for export: Iran, Russia and Cuba. Understanding
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Part 107 is simplifying the implementation of drone operations within corporations. That was the message from Kathleen “Kat” Swain, senior director of UAS programs for AOPA; Amanda Ferraro, a captain with American Family Insurance; and Greg Cerillo, a lawyer with HCH Legal. “If all you need is line-of-sight operations at altitudes below 400 feet, using equipment weighing less than 55 pounds, traveling at speeds under 100 mph, then the new Part 107 rules mean you are good to go,” Cerillo told AIN. Larger, faster drones that operate higher still require a Section 333 exemption.

The drones used by companies under Part 107 are primarily for imaging; in the case of insurance companies for taking pictures of damaged roofs after windstorms and tornadoes. American Family Insurance and USAA use their drones to enhance worker safety. “When I was at USAA we figured it was better to send a drone up to document damage than to have an adjuster on the roof,” said Swain, who now heads AOPA’s drone pilot initiative (the organization recently opened its membership ranks to drone pilots). At USAA the corporate flight department decided to look outside for pilots and drones.

Ferraro’s flight department at American Family Insurance embraced the idea of drones, and Ferraro, a senior active jet captain for the company and an active flight instructor, was tasked with building a program from the ground up. “My superiors made it clear: they did not want to hire 50 drone pilots,” she said. “Instead, we developed an in-house training program for our adjusters to turn them into drone pilots. We mimicked the IS-BAO SMS program in our flight department. We wanted to… teach [non-pilots] how to adhere to our exacting standards of proficiency and make sure they can operate well within the FAA framework. Now we have a ground school and flight training program, SOPs and Best Practices manuals and an emergency procedures program.”

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**NBAA conference**

Continued from page 52

these restrictions (and knowing how to search the list of individuals and entities to whom U.S. citizens may not sell aircraft) is crucial to success.

The core of this conference revolves around trusts and the complicated corporate structures lawyers concoct for aircraft owners designed to mitigate liability risks and tax impacts for them. This year focused on how a perfectly good structure, be it LLC or S-Corporation, needs to change when the aircraft owner’s situations change. For example, an aircraft purchased solely for Part 91 use incidental to business might, in the owner’s later years, be used more for family travel or even leased out to a Part 135 charter broker.

The conference wrapped up with an informative “Are you covered?” session by insurance experts Melissa Harder of Willis Towers, Watson; Sharon Holahan, v-p of claims at Global Aerospace; and Ellyn Snow, of Ellyn Snow Consulting. Attendees learned about the Part 135 operator sued for liability in a kidnapping; uninsured that was damaged in transportation (again on a charter flight); and the horror of learning that the loaner engine destroyed with your aircraft in a hangar fire wasn’t covered under your typical policy. The takeaway from that: insurance riders are good to have in your defense arsenal.

“I feel really good about this year’s conference because there was a lot of engagement by the attendees with the speakers,” conference co-host Eileen Gleimer told AIN. Gleimer is a lawyer with Crowell & Moring who has been with the conference since its earliest days. She characterized the 170 attendees as “the people who actually make the deal go through, handling the nuts and bolts.” As for potential clients, there were a few lurking in the room, all three co-hosts acknowledged, but no one was overly gunging for their business.

“We work hard at making it a relaxed and open conference that encourages the group to ask questions and be involved,” said Polk. “We try to encourage people to embrace it and make it their own, so they can have a good learning experience.” The conference provided a maximum of 12.5 hours of recommended continuing education (CPE) credits in accordance with the standards of the National Registry of CPE Sponsors (it could also be used for continuing legal education credit, with appropriate documentation).
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True operator buy-in key to success of safety programs

by Sean Broderick

The Air Charter Safety Foundation’s (ACSF) annual safety symposium, held March 7 and 8 in Ashburn, Va., carried the theme “Safety is a choice you make,” and proceedings underscored an intended double meaning. The message: while adopting safety-enhancement initiatives is a choice, it is not enough. Operators must also elect to put forth the effort required to ensure these programs deliver measurable results beyond preventing accidents.

Put another way, it is not enough for business aviation to sign on to safety efforts such as an Aviation Safety Action Program (Asap). The success of such programs depends on operators’ treating implementation as an early step on the risk-management journey, rather than a box-checking exercise. And a safe operation in macro terms—zero accidents or major incidents—might make an unaware operator even more susceptible to risk escalation.

“Success, in my view, is something that breeds complacency,” said Joe Salata, chairman and v-p of the ACSF and v-p for flight operations at Flight Options.

The good news is that more operators appear to be embracing risk-management programs. ACSF, an FAA-designated third-party Asap manager, counts 65 companies in its four-year-old program and has 20 more in the queue. Participants are roughly split between Part 135 and Part 91 operators. Among the program’s extra benefits: ACSF handles 90 percent of the administrative burden, removing one potential obstacle for smaller operators concerned about manpower.

While initiatives such as Asap and corporate flight operations quality assurance (C-FOQA)—flight data-monitoring—programs help identify risk areas, they are of little value if the lessons they teach are not applied.

Pattern of Noncompliance

Investigators probing the May 2014 accident that killed all seven people on board a Gulfstream IV attempting to take off at Hanscom Field in Bedford, Mass., gained significant insight about the flight crew’s tendencies from 303 hours of quick-access recorder (QAR) data. Among the patterns discovered: a habit of skipping full pre-flight checks of the flight controls. The NTSB’s final report on the accident listed this “intentional noncompliance” in the series of errors that caused the crew to attempt to take off with the GIV’s gust lock engaged, leading to an attempted rejected takeoff and high-speed runway overrun.

The GIV’s operator was enrolled in C-FOQA, Tom Huff, Gulfstream’s director of safety, told symposium attendees. “What we don’t know is how they were using the information,” he added. The operator’s only employees—two pilots and a flight attendant—were killed in the accident, leaving the Safety Board with few leads for gaining insight into the operation’s inner workings.

A study last fall in response to an NTSB report noted. Passing an IS-BAO Stage 1 or 2 audit does not require a check ride, and the GIY operator’s 2012 audit report noted that flight operations were not observed because no flights were scheduled during the audit period,” the NTSB report said.

While an audit check ride might not uncover issues such as pre-flight checklist noncompliance, the NTSB argued in its report that “audit standards could have included a provision indicating that company policies and procedures should specify preferred methods for checklist execution.” While not guaranteeing flight-crew compliance, the existence of such standards “would have provided a clear message to the flight crew about best practices regarding checklist execution,” the Board continued.

The NTSB recommended that the International Business Aviation Council, IS-BAO’s steward, change its standards. The group did, telling the board in February last year that a new standard calling for operators to “comply with best practices regarding checklist execution,” and providing examples, is now part of IS-BAO.

While such changes may create tools that flight departments can use to hold themselves accountable, ultimately, meaningful execution of a safety program comes down to internal commitment.

“I think the impacts of a program that fooled itself,” NTSB member Robert Sumwalt said of the Bedford GIV’s operator, citing the IS-BAO audit results. “You can fool the auditors, but never fool yourself.”

News Note

The FAA is committed to making Aviation Safety Action Programs (Asaps) more flexible to increase their effectiveness. FAA Flight Standards Service director John Duncan said at the Air Charter Safety Foundation Symposium. As part of this, the FAA is working on a third draft of Advisory Circular (AC) 120-66C, which guides Asaps.

Duncan suggested that the AG will loosen some perceived program constraints. One example is the current push to report incidents within 24 hours. This works well for flight operations; however, on the maintenance side mishaps are often uncovered weeks later, usually by someone other than the person who erred, so such maintenance incidents often go unreported because of a lack of clarity about possible ramifications. There is no timeline for the AC’s release.

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will become an issue as the deadline approaches, he said.

Brad Mottier, vice president and general manager at GE Aviation business and general aviation and integrated systems, discussed the challenges of getting products validated internationally and even in the U.S. “It’s a cumbersome process,” he said, adding that it delays introduction of products. The four major design authorities (from the U.S., Europe, Canada and Brazil) published a plan in September to improve the process. “There has been some progress,” and some cases are “much, much better… but it requires a lot of… coordination with certifying agencies.”

In some cases, the validation process has gone on so long that the application expired and the company had to start the process over again, Bunce added.

Association Growing

GAMA also held a board meeting accepting new members that not only illustrate the growing reach of the association’s membership but also provide a glimpse of the evolving and expanding nature of the industry. The additions range from companies involved in new technologies such as Tamarack Aerospace Group to Uber, which has a vision of stepping into the industry. In all, the board approved three additional members and three associate members. Along with Tamarack, the new members are Camp Systems International and Pipistrel. Uber joined as an associate member, along with Ascent Vision Technologies and SmartSky.

As an aircraft manufacturer, Slovenia-based Pipistrel is among the more traditional companies to join GAMA. Founded in 1989, Pipistrel produces light general aviation aircraft and electric flight technology. Its products range from light sportplanes to the Panthera, a composite aircraft that can be either fully electric-, hybrid- or avgas-powered. Pipistrel joins as GAMA members continue to dive more deeply into hybrid and electric technologies through the association’s Electric Propulsion Innovations Committee.

Tamarack Aerospace, based in Sandpoint, Idaho, produces a range of technologies for business, commercial and military aircraft, among them active winglets certified for various Cessna Citation CJ.

Camp Systems, founded in 1968, is long established in the maintenance-tracking arena. It works with airframe and engine manufacturers to improve data and provides maintenance tracking for 20,000 aircraft, along with engine health monitoring for 30,000 engines.

Uber, meanwhile, is joining the associate member category that GAMA established in late 2015. Founded in 2010, the San Francisco company has provided two billion passenger trips in automobiles. The company recently announced Uber Elevate, a project aimed at providing on-demand air service through a network of small electric vertical takeoff and landing aircraft. Uber is working with manufacturers, regulators and government officials to accelerate the development and certification of such aircraft.

Ascent Vision Technologies is the youngest of the companies to join GAMA, founded in 2015 and growing to 40 employees today. Ascent designs and manufactures gyro-stabilized sensor systems for aerospace, maritime, defense and automotive applications.

Another relatively young company, SmartSky Networks, was launched in 2011 to develop communications technologies and is planning to roll out its air-to-ground network, SmartSky 4G, later this year.

GAMA membership now exceeds 100 companies.
But not so fast...

The ascent off the bottom may be a slow one. Even as flight hours pick up, operators might be gun-shy about committing capital to new purchases. Honeywell’s latest “Turbine-Powered Civil Helicopter Purchase Outlook,” released at the show, downgraded delivery totals from last year’s forecast by roughly 400 aircraft. The survey noted an environment of slow economic growth worldwide and volatility in oil-and-gas-related markets, both of which are fostering a cautious outlook for near-term new purchases, despite fleet utilization “generally increasing” over that of the previous year. Those usage rates are expected to improve significantly in North and Latin America over the course of the year, with a moderate rise in Europe, and 2017 deliveries are anticipated to climb modestly over 2016’s totals. Honeywell forecasts delivery of 3,900 to 4,400 civil turbine helicopters between 2017 and 2021.

Broken down by region, the company saw North American purchase plans decline for the second straight year, in this case by 2 percent. The region encompasses 40 percent of the current global fleet. Three quarters of planned purchases in North America during the five-year survey window consist of light, single-engine models, while 13 percent consist of intermediate or medium twins. In Europe buying plans fell by 3 percent. Latin American purchase plans declined by 13 percent compared with the 2016 survey results; they dropped by 11 percent in the BRIC countries. However, in the Middle East and Africa, 25 percent of respondents said they were planning a new purchase.

Even the once red-hot Asian market is hitting the rotor brake. Hong Kong’s Asian Sky Group reported that there was only 4-percent growth among turbine-powered rotorcraft in the region year-over-year last year, growing to 3,924 from 3,761, and only half of the region’s countries experienced growth. China still has fewer civil helicopters in service than Japan. While oil prices have climbed since last year’s Heli-Expo, leasing company Milestone Aviation Group CEO Daniel Rosenthal cautioned that it will take years for the industry to work through the helicopter oversupply. “We are operating on the assumption that it is going to be a number of years before the industry truly bounces back, and frankly I don’t know that we will get back to the levels that we saw in 2013 and 2014,” he said.

Meanwhile, D Is for Deals

Leasing companies like Milestone are increasingly moving into the void to provide significant financial tools to operators and keep the production lines moving at the OEMs. Milestone announced $306.5 million worth of orders for 35 aircraft (26 from Airbus and nine from Leonardo) for delivery between 2017 and 2021. Milestone’s Rosenthal said a good chunk of the order was designed to move deeper into the light and medium twin arena in the face of continuing weakness in the offshore energy. Waypoint Leasing also rang
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the register at Airbus, ordering 16 more H135s and H145s worth $105 million. It also announced several deals to lease aircraft into the Chinese, South African and Indonesian markets.

Lessor LCI agreed to lease a trio of Leonardo AW169s to Norway’s Airlift to support sea pilot transfer operations.

Bell delivered the first 505 light single to Pylon Aviation owner Scott Urschel of Chandler, Ariz. It also announced that China’s Reignwood Aviation ordered 50 more 505s, bringing its total order to 60, which will make it the world’s largest fleet operator after deliveries are completed over the next three years. Mecaer Aviation Group revealed a luxury interior for the 505 that will cost between $90,000 and $120,000 and be available for installation next year.

Leonardo is looking to provide civil airframes to the U.S. military, formally fielding the AW139 in partnership with Boeing to replace the 84 aging Bell UH-1N Hueys the U.S. Air Force uses to replace the 84 aging Bell UH-1N Ranger primary trainers with the AW119Kx.

**Shiny Stuff: New Hardware... Imagined and Real**

Bell unveiled the FCX-001 concept helicopter mock-up, a design intended to test future technologies that could eventually find their way onto production models. The FCX-001 features aggressive angular design and morphing main rotor blades, a tail boom with vectored thrust generated by electric motors, fly-by-wire controls, single-pilot crew, artificial intelligence and modular flooring.

MD Helicopters took the wraps off the previously announced 6XX large single, which resembles a 600N sans the Notar tail-boom. MD expects the “clean sheet design” to fly by year-end and be certified next year. The helicopter appears to be aimed primarily at the EMS and law enforcement markets. Preliminary specifications: maximum speed of 160 knots, range of 500 nm and 20,000-foot ceiling. The 6XX will feature the Genesis Aerosystems glass cockpit, Macro-Blue tactical displays, mission management system from TekFusion Global, all-new S411 main rotor blades from HTC, a four-blade tail rotor, boosted flight controls and digital three-axis autopilot.

Argentina’s Cícáre Helicopters made its Heli-Expo debut, bringing the SVH-4 trainer to the show floor. The $150,000 device is basically a 71 single-seat helicopter attached to an adjustable ground-based platform that is FAA-qualified for 10 hours of training time. The company plans to start selling them in the U.S. later this year through its distributor Deaga USA in Mesa, Ariz. Company founder Augusto Cicaré built and flew his first helicopter in 1958.

**Number Crunching: Big Data Is Coming, but Are We Really Safer?**

Data from the International Helicopter Safety Team (IHST) released at Heli-Expo shows that the accident rate is declining, at least in the U.S. But the fatal accident rate is flat and international data is inconclusive. How much of the improvement is attributable to safety advances and how much is the result of less flying in the downtown remains a question. The number of helicopter accidents and fatal helicopter accidents last year was down by 17 percent year-over-year, according to raw data from 50 countries compiled by the IHST.

“Of course, some of this decline is because in some places they aren’t flying as much,” noted the FAA’s Tony Molinaro, who has been with the IHST for much of its 12-year existence. “We realize that, so we don’t want to say everything’s down because everything is much safer.”

However, the stakeholder consensus is that the path to better safety is paved with big data, and there is no shortage of new devices on display on which to collect and transmit it in real time from aircraft. Against this backdrop, HeliOffshore and GE Aviation announced a deal to develop and implement a global safety management system specifically for the offshore industry that handles advanced analytics. HeliOffshore operators already share health usage and monitoring (HUMS) data.

**The Bulgarians are coming!**

The Russians didn’t make it to Heli-Expo this year, but one of their former helicopter operators did, by way of the Bulgarian Air Force. The 1981 Mil Mi-24D Hind gunship is now owned and operated by the Cold War Air Museum in Lancaster, Texas, which bought it and two others from the Bulgarians in 2005. Veteran “Red Flag” pilot John Totty flew it into Dallas. Totty said the low-tech Hind “has no problem” running down Black Hawks and Apaches.

**America’s Cheerleaders:** Dallas Cowboys owner Jerry Jones couldn’t make the show to talk about his new H145, so he did the next best thing. He sent a couple of team cheerleaders, seen posing here with Airbus Helicopter executives. Jones took delivery of his H145 just before the start of the 2016 season.
Avionics

AEA Convention presented a look at what the future holds
by Matt Thurber

This year’s Aircraft Electronics Association International Convention & Trade Show hosted 135 exhibitors in a sold-out exhibit hall. The growing pressure on aircraft owners and operators to upgrade for NextGen in time to meet the U.S. ADS-B deadline after Dec. 31, 2019, was a hot topic. Avionics manufacturers and installers are responding with more options, even for business jets, and they are hopeful that this will accelerate bookings in avionics shops as the deadline draws closer.

During the new product introduction session on the first day of the convention, 29 companies offered a glimpse into what’s coming in the avionics field, from a new Visuvis lighted switch that will lower the cost of ADS-B installations for business aircraft to new ADS-B STCs, cabin interior products such as Appareo’s Stratus USB charging port, test equipment and a new voice safety services satcom from Llatitude Technologies.

AEE board chairman David Loso, manager of avionics sales at Jet Aviation St. Louis, summarized the issues facing the avionics industry during the show’s opening ceremony. “The FAA today is working today with industry to examine and implement progressive means of compliance and approval and reducing outdated regulatory burdens,” he said. “As we look toward the future, AEA will continue to address the critical issues facing our industry today and in years to come: finding qualified technicians, building healthy relationships between OEMs and the dealer networks and working with the international regulatory authorities to improve safety, streamline the certification processes and efficiently deploy evolving and new technologies.”

New Flight Deck Features

The days of big announcements of new integrated cockpits are on hiatus, probably because these products are widely installed in many aircraft and the products are now seeing incremental changes.

Garmin, for example, brought the new G1000 NXi flight deck to the convention, highlighting the speeder processing power of the displays and the features that the added power allows, among them the HSI map overlay, faster startup and panning and the customized visual approach feature.

Aviondy has received FAA TSO approval and an approved model list STC for the IFD550 FMS/GPS/navcom equipped with an attitude reference sensor. All avionics installs from the company units to the Citation 550 as well as Garmin’s voice-activated GMA 35 audio panel and ADS-B out/transceiver. The upgrade also introduces two-way wireless connection to Aviondy’s IFD1000 iPad app, wireless flight-plot plan transfer into the IFD, circular holds (orbit around a point), RDR2000 radar display and the option of adding RS-170 video input and display on the IFD 5-series.

FDS Avionics released the Glass Cabin upgrade to the 3D map system running on its do Capsule inflight entertainment system, allowing passengers to view surrounding terrain in any direction on their mobile devices. The Glass Cabin runs on the free do Experience app for Apple and Android devices; the app also provides access to do Capsule entertainment content such as DRM-compliant movies, music, photos, business documents and 2D and 3D moving maps.

Also introduced at AEA 2017 is the FDS Avionics Pentra Converter, a hardware video converter that transforms five different video formats to the high-definition serial digital interface for FDS’s Edge Series displays. The Pentra Converter operates on 28 VDC and allows passengers to connect video sources such as HDMI, DVI, DisplayPort, VGA and composite to the entertainment system.

FlightSafety International has selected a JetTechn Citation avionics upgrade for its Citation 550 full flight simulator, which will allow clients who fly the Citation 550s with the JetTech upgrade to learn in a more familiar environment. The upgrade adds Garmin GTN 650/750 touchscreen GPS/GNSS units to the Citation 550 as well as Garmin’s voice-activated GMA 35 audio panel and ADS-B out/transceiver. JetTech also announced that the FAA has approved its STC to install the GTN 650/750 in the CitationJet 525, 525A and 525B equipped with Rockwell Collins Pro Line 21 avionics and FGC-3000 autopilots.

A partnership between FreeFlight Systems and Becker Avionics promises a cost-effective ADS-B out and in installation for turboprops and jets. The setup pairs FreeFlight’s 1203C SBAS/GNSS and Rangr-RX ADS-B receiver with Becker’s BXT6513 mode-S transponder. The system is diversity-capable and can be installed on aircraft equipped with Tcas I and II systems.

L3 Aviation partnered with Thomas Global Systems to develop L3’s new EFI-650 LCD upgrade for legacy business jets and regional airliners. The $34,500 EFI-650 is an LED-backlit LCD that weighs half a pound, about half as much as the CRT displays it replaces.

Continued on next page
EASA issues approval for Garmin ADS-B transponders
by Matt Thurber

Garmin’s GTX 345/335 ADS-B transponders have been approved by the EASA for installation in a variety of airplanes and helicopters. Both transponders are available in panel- and remote-mount versions, and they are compatible with many Garmin displays, both legacy and current models. The remote versions can be installed with Garmin GTN 650/750 systems and G1000 integrated flight decks. The panel-mount GTX units measure 1.65 inches high (4.2 centimeters) and can replace popular transponders such as Garmin’s GTX 327 and others. In addition to dedicated buttons for entering numeric squawk codes, the GTX transponder has a built-in timer and a sunlit-readable display that also shows pressure altitude.

Both the GTX 345 and 335 are available with an optional Waas/GPS sensor to meet the ADS-B OUT requirement. The GTX 345 provides dual-band ADS-B OUT/IN for display of traffic on compatible displays, and it shows Garmin’s TargetTrend and TerminalTraffic. Audible traffic alerts can be delivered via the aircraft’s audio panel. The GTX 345 also offers Garmin Connext, with both wireless connectivity and built-in AHRS for delivery of ADS-B traffic, GPS position and back-up attitude information to mobile applications such as Garmin Pilot and Garmin’s aera 660 and 796/795 portable navigators. The GTX 335 lacks the ADS-B IN features.

The GTX 345 retails for $5,795 with Waas/GPS or $4,999 without Waas. The GTX 335 costs $3,795 with Waas or $2,995 without it. Prices are the same whether panel-mounted or remote-mounted.

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SEND SOLUTIONS STCs Iridium Satcom in Citation X
Send Solutions has received an FAA STC for installation of Iridium satellite terminal equipment on the Citation X. Compatible with existing Iridium antennas, Iridium is a full-duplex low earth orbit network. The system is priced at $14,950 (not including installation or antenna, if needed); airtime services cost $300 per year for 1,000 text messages, then $100 for each additional 2,000 text messages. Voice calling, which requires purchase of a sim card from a service provider, is about $1.60 per minute. Users connect to Iridium wirelessly via built-in Bluetooth LE.

Iridium+ and the $9,750 Iridium (without voice calling) also work with Send Solutions’ FleetLink service, which can be used to track Iridium-equipped aircraft, for aircraft on/off reporting and text communications from the ground to the aircraft.

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AEA Convention
Continued from preceding page

the cigarette lighter power supply, and it can be installed in horizontal or vertical orientation. The $299 Power Port is back-lit to make it easier to see in the dark and provides 2.1-amps at each port. Guardian continues to expand its line of IFDR iPhone/iPad Panel Mounts, which can be mounted flush onto instrument panels and feature a spring-loaded mechanism for docking the device. The IFDR Panel Mounts fit the Apple iPad Mini 2 and 3, iPad Pro (12.9- and 9.7-inch), iPad Air/Air 2, iPhone 6 and 7 and 6+ and 7+. Ports are included for the Apple Lighting cable and 3.5-mm audio cable, and the mount carries a five-eighth-inch tapered hose/tube for attachment to a standard avionics cooling fan.

Robotic Skies announced a partnership with drone avionics manufacturer uAvionix, under which Robotic Skies will provide sales, installation and field support for uAvionix customers. Robotic Skies has created a worldwide network of aircraft service centers—primarily Part 145 avionics service providers—that also specialize in drone support.

MyGoFlight received FAA “Non-Required Safety Enhancing Equipment” approval for installation of its UltraThin iPad Panel Mount in Part 23 airplanes and Part 27 and 29 rotorcraft. The panel mount is installed in the instrument panel and allows docking of iPads (the iPad Air 2, mini 4 and 9.7-inch Pro). A slot for the Apple Lighting cable is provided.

Esterline’s Korry switch line is offering 389-series five-eighths-inch cockpit annunciators for ADS-B OUT equipment installations. The 389 annunciators use bright LEDs and can be delivered in as few as three days. They are mechanically interchangeable with standard 5/8-in switches and can be customized for night-vision imaging system installations.

Connectivity Corner
Satcom Direct will sell Astronics AeroSat’s FliteStream T-Series tail-mount airborne connectivity system through the Satcom Direct dealer network. The FliteStream T-Series has the advantage of delivering broadband Internet and live television in a single system, using the Panasonic Avionics Ku-band satellite network, instead of having to install two separate systems.

Gogo Business Aviation has received FAA STC and parts manufacturer approval for the Gogo Biz 4G air-to-ground airborne connectivity system. Gogo Biz 4G is three times faster than Gogo’s existing business aviation air-to-ground service and delivers peak speeds of up to 9.8 Mbps, allowing streaming video and audio, email with attachments, web browsing, voice calling and VPN support. Aircraft that upgrade to the 4G system will be upgradeable later to Gogo’s high-speed Next Gen network, which “is expected to produce speeds up to 100 Mbps,” Gogo said. Next Gen, using LTE technology, should launch next year and “will use a proprietary modem, a new beam-forming antenna and unlicensed spectrum to produce that level of performance.”

Latitude Technologies introduced the SkyNode S200-012 ATS Safety Services satcom, an Iridium system designed for closed (safety-critical) and private voice communications with air traffic services, aeronautical operational control and airline administrative control.
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Air Transport

CFM-powered A321neo wins EASA, FAA nod

by Gregory Polek

The CFM Leap-1A-powered Airbus A321neo has won joint type certification from the European Aviation Safety Agency (EASA) and the FAA, the manufacturer announced on March 1.

The approvals follow 400 hours of flight-testing over the course of 160 sorties. The CFM-powered A321 becomes the fourth member of the neo series certified over the past 15 months. Two engine types power the A320neo and A321neo—the CFM Leap-1A and Pratt & Whitney PW1100G geared turbofan. The Pratt-powered A321neo received joint EASA-FAA certification on December 15 after accumulating 350 test hours on 130 flights.

Airbus has yet to announce the first operator for either version of the A321neo. The Pratt-powered version made its first flight later than the CFM Leap-1A-powered model, which flew for the first time on February 9 last year. Originally planning to fly the PW1100G-powered version first, Airbus switched the flight-test sequence as Pratt worked on a machining problem and software adjustments to address operating restrictions—namely extended start-time intervals—on the smaller A320neo. The first Airbus A321neo powered by Pratt & Whitney engines completed its maiden flight exactly a month later. Despite the switch in first-flight sequence, Airbus still planned to deliver the Pratt-powered A321neo around the new year, just ahead of the Leap-powered version in the first quarter. It has yet to deliver either, however, as the company continues to grapple with “maturity issues” involving the PW1100G.

Separately, Airbus confirmed its cooperation with Indian airworthiness authorities on reliability deficiencies involving the PW1000Gs on A320neos flying with IndiGo and GoAir. The Indian DGCA in late February began what it called detailed examination of 21 of the airplanes now in operation with the two airlines following an emergency landing by a GoAir A320neo on February 8.

“We are in close contact with our customers in India and are supporting them in their daily operations, while we put all our efforts into working closely with P&W and the DGCA to identify and provide solutions quickly,” said Airbus in a statement.

The first A321neo powered by CFM Leap-1As takes off from Toulouse Blagnac Airport.
Embraer rolls out E195-E2, Azul to launch operations

by Bill Carey

Embraer rolled out the first E195-E2 airliner from the São José dos Campos facility on March 7, declaring it the largest aircraft ever produced in Brazil. The manufacturer plans to begin the flight-test phase ahead of schedule during the first half of the year.

Planned for entry into service in the first half of 2019 with launch operator Azul of Brazil, the second-generation E-Jet is powered by twin Pratt & Whitney PW1900G geared turbofans and provides three more rows of seats than the current E195. The single-aisle airliner can seat 120 passengers in two-class configuration and up to 146 in a single class, Embraer says. Advertised range is 2,450 nm—up by 450 nm. Azul plans to take the 30 airplanes on which it holds a firm order in a single-class, 130-seat layout.

Embraer will deploy two prototypes for the E195-E2 flight-test program. The aircraft rolled out last month will be used for aerodynamic and performance tests. The second prototype, which is cycling through final assembly, will be used for validation of maintenance tasks and testing of the interior. The manufacturer expects to fly both aircraft before year-end, John Slattery, Embraer commercial aviation president and CEO, told AIN in an interview before the rollout.

“We are ahead of schedule,” he said of the first-flight milestone. “The guidance we’ve given to the market is the second half of this year, but I would be surprised and disappointed if the first E195-E2 does not enter into the flight-test program in the first half of this year.” Slattery expects to receive updated guidance on the schedule this month.

The 106-seat E190-E2, the first of the new-generation E-Jet variants, performed its maiden flight on May 23 last year. Embraer has now completed about one-third of the flight-test program with three test aircraft; a fourth will join the program soon, Slattery said. Plans call for the E190-E2 to enter service in next year’s first half, and a third variant—the E175-E2—in 2021.

Embraer reports receiving firm orders for 275 E-Jet E2s since the program was launched in 2013, of which 90 are E195-E2s. The current buyers are aircraft leasing company AerCap of Schiphol, the Netherlands (firm orders for 25), lessor AirCastle of Stamford, Conn. (10), Indian regional airline Air Costa (25) and Brazilian low-cost carrier Azul (30). Those companies also have options for 80 more E195-E2s. Embraer will announce the launch customer soon, Slattery said.

Fuel Burn Benefits

The Brazilian manufacturer contends the E195-E2 will deliver 15 percent better fuel burn per trip and nearly 10 percent better fuel burn per seat than Airbus’s re-engined A319neo or Boeing’s 737 Max single-aisle airliners, making it well suited for low-cost operations in mid-density markets. The list price of the largest E2 jet is $66.6 million.

“It is a profit-hunting machine,” Slattery said. “I think the E195-E2 will be a machine that will be viewed closely by the low-cost carriers around the world as they look to advance their own franchise outside the larger cosmopolitan areas that they’re serving—the trunk routes. As they look to grow and change yield, they have to go to smaller markets. With the 195-E2 it will be a far more preferable aircraft to do that over the larger narrowbodies that are in production today.”

As any government dignitaries would attend the E195-E2 roll-out, Slattery said the ceremony was “about celebrating and thanking our employees, not only in São José but around the world. We are dedicating this roll-out to our employees; they are [the] dignitaries.”

Boeing rolls out 737 Max 9, preps for first flight this month

Boeing rolled out the first 737 Max 9 single-aisle airliner at its factory in Renton, Wash., on March 7. The aircraft is now beginning system checks, fueling and engine runs in preparation for first flight this month.

The Max 9, which can carry 220 passengers 3,515 nm, is scheduled to enter service next year.

Deliveries of the smaller Max 8 are slated to start in this year’s second quarter. Boeing is also working on a smaller Max 7 model and a higher-capacity Max 200. Also under consideration is a possible Max 10, which may or may not form the basis for Boeing’s larger still Middle-Market Aircraft program.

“The 737 Max team continues to do a fantastic job getting us to these important milestones right on schedule,” said Keith Leverkuhn, vice president and general manager of the Max program. “Our primary focus is delivering an aircraft that has the legendary reliability our 737 customers depend on, plus the optimized flexibility and range capability they desire.”

The Max 9 is powered by CFM International Leap 1B turbfans. Boeing claims it will deliver seat costs 8 percent lower than those of the rival Airbus A320neo. —C.A.
BOEING SET TO RAISE INDIAN AIRLINER FLEET

Having previously forecast deliveries of 1,850 airliners to India over the next 20 years, Boeing has now indicated this figure could rise as it has not so far accounted for the added traffic that could stem from the country’s new regional connectivity scheme (RCS), set to launch last month. At February’s Aero India show in Bangalore, the U.S. airframer claimed it will continue to be the market leader for widebody aircraft ordered by Indian carriers.

“Future growth in India will come from secondary and tertiary cities,” said Dinesh Keskar, Boeing’s senior vice president of sales for Asia-Pacific and India. He predicted that the RCS eventually will generate more demand for single-aisle jetliners, such as the 737 series, after 70-seat regional jets have developed new regional routes.

India’s government is introducing the RCS, with financial incentives and subsidies, as a way to boost traffic at second- and third-tier cities. Keskar, who said that Boeing will revise its forecast for the country after the program takes effect, believes that once regional airlines have built routes beyond the capacity of 70-seat aircraft they will move on to develop other new routes—leaving the others to be served by larger single-aisles.

Meanwhile, startup carrier Vistara, a joint venture between Singapore Airlines and Tata, plans to launch international operations by next year. Keskar predicted that in selecting its widebody fleet, the new airline may well follow the example of its Singaporean parent, which recently ordered twenty 777-9s and nineteen 787-10s.

In January Boeing announced orders from Indian budget airline SpiceJet for 100 more 737 Maxes. Keskar predicts that this year will bring more new Indian 737 Max orders, following the recent order for 75 aircraft from Jet Airways. —Neelam Mathews

Indonesia making mixed progress with small airliners

by Chris Pocock

Regio Aviasi Industri (RAI), the Indonesian company that is trying to launch an 80- to 90-seat R80 turboprop regional airliner, is still seeking funding. It has received seed money from Indonesian investors and a commitment from Bandung-based Indonesian Aerospace (Indonesian acronym PTI) to act as a subcontractor for full-scale development and production. Meanwhile, state-owned PTDI is continuing with preliminary design of its own regional airliner, a 50-seater designated N245. PTDI is also preparing to fly another new turboprop, the 19-seat N219 high-wing multi-purpose aircraft.

The R80 is the brainchild of former PTDI chief and Indonesian president Dr. B.J. Habibie, now 80 years old, who still strongly believes in the potential for advanced turboprop airliners in Southeast Asia. Under his leadership, in the 1980s PTDI (then known by the Indonesian acronym IPTN) launched development of a smaller turboprop airliner, the N250, and flew two prototypes in 1995-96. The N250 project was shelved in 1998 during the Asian financial and Indonesian political/social crisis that led to Habibie’s short presidency of the country. Habibie and his son are major investors in RAI, which revealed the project in 2014.

The N245 was unveiled last November and would be a development from the CN235 military medium airlifter that IPTN co-developed with Casa (now Airbus Defence & Space) in the 1980s. It would have a new airframe structure that eliminates the rear loading ramp of the CN235. During a recent AIN visit to Bandung, PTDI officials said that the company’s much smaller N219 turboprop will make its first flight this month. Full-scale development of this high-wing design was launched in 2013, and the prototype was rolled out in November 2015. This prototype was later disassembled for further work and is still being re-assembled. A second prototype is also taking shape. PTDI believes in the N219’s potential to drive development of remote areas within Indonesia’s huge archipelago. Company officials told AIN that they have received letters of intent for 200 of the 19-passenger STOL aircraft.

Thai air law boosts safety regs, opens door to foreign ownership

by Michael Mackey

A new law covering the regulation of aviation in Thailand is set to take effect around August or September. The law, which was approved by the Thai cabinet on February 21 and is now being considered by the country’s parliament, is intended to strengthen safety regulation while allowing foreign investment in Thai aviation companies.

The legislation will replace the outdated 1954 Civil Aviation Act and, significantly, it will give the Civil Aviation Authority of Thailand (CAAT) greater impetus to certification to ICAO standards through a process supported by the UK Civil Aviation Authority.

“IT’s going to help us speed the implementation of ICAO standards,” CAAT director general Dr. Chula Sukmanop told AIN, explaining that the agency would have the power to issue ICAO-based regulations directly rather than having to submit each one for parliamentary approval.

One of the key provisions of the new law is the establishment of a committee of delegates from several government departments to consider applications for air operator certificates (AOCs), rather than leaving this entirely at the discretion of the Thai transport minister. A shortage of skilled personnel has resulted in a temporary moratorium on issuing new AOCs. The new aviation law also will remove the requirement for all Thai air transport operators and service companies to be at least 51 percent owned by Thai nationals. Among other issues, this may prove to be significant in attracting foreign investment in areas such as maintenance, repair and overhaul providers.

Meanwhile, the CAAT announced that Bangkok Airways has completed recertification to ICAO standards through a joint program conducted with support from the UK Civil Aviation Authority’s CAA International (CAI) directorate. “Bangkok Airways is the first of nine airlines that are expected to be granted AOCs as they are in the initial group,” said Sukmanop. “The remaining eight are still in the process, because each airline’s inspection period depends on the complexity of the organization, the size of the aircraft fleet and the company’s operational complexity.”
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For more information, contact Dave Brown, Integrated Flight Deck Retrofit Programs Sales Manager at Dave.Brown@Garmin.com or 913-440-1714. Or visit Garmin.com/aviation.
Charter audit questions

Continued from page 1

descent below minimum descent altitude
without visual contact with the runway
environment and an aerodynamic stall.”

The Board cited contributing fac-
tors: “Execlift’s casual attitude

toward compliance with standards; its

inadequate hiring, training and opera-
tional oversight of the flight crew; the

company’s lack of a formal safety pro-
gram; and the [FAA’s] insufficient over-
sight of the company’s training program

and flight operations.” Execlift dis-
puted these conclusions in its submis-

sion to the NTSB docket.

‘Illusion of Safety’

In his statement appended to the NTSB accident report, Sunwalt highlighted deficiencies at the charter operator, issues with the pilots, insufficient over-
sight by the FAA and problems that he

sees with industry audits. “Finally,” he

wrote, “I’m concerned that an organi-
zation that had so many safety-related

issues could have an Argus Gold rating

and be Wyvern Registered. Discriminat-
ing customers look to, and trust, such

‘seals of approval’ when selecting their

air travel provider.” Sunwalt added,

“This is not the first time the NTBS has

seen an organization pass an industry

audit, only to find after an accident that

there was an illusion of safety.”

Discriminating customers look to, and trust, [charter audits as]

‘seals of approval’ when selecting their air travel provider.”

Robert Sunwalt

In fact, Execlift was not audited by either Argus or Wyvern, according to

principals from both companies. Information about Execlift is available

from both companies. In the Argus system, Execlift has a Gold rating,

which means that charter buyers can look up

information on Execlift’s charter

certificate, pilot qualifications, aircraft

and insurance coverage. Similar informa-

tion is provided for Execlift as a Wyvern

Registered operator. Only char-
ter operators that are audited by Argus

can apply for a Platinum rating, and op-

erators audited by Wyvern can apply for

Wyvern status.

Joe Moeggenberg, Argus International

president and CEO, aware of confusion

among charter buyers about whether or not an operator is audited. “The big

cornern that [Sunwalt] had was…the pub-
lie doesn’t know the difference between a

Gold and Platinum operator. Through the

marketing of the operators, it’s not clear
to the customer; the term audit doesn’t

involve an onsite audit.”

Moeggenberg discussed these details

with Sunwalt to make sure he under-

stands the difference and to assure him

that Argus is addressing the issue with

charter buyers. “We understand where

the confusion is with the traveling pub-
lie,” he said. “We’re making an extra
effort to make sure they understand the
difference.”

Art Dawley, CEO of Wyvern, pointed out

that Wyvern subscribers can use its

service to compare their own standards

against information in the Registered

operator database. “Wyvern does not cer-
tify or accredit any operator under this

program, nor does it require an audit of

that operator,” he explained. “The only

operators that Wyvern confirms meet our

proprietary safety benchmark (Wingman

Standard) can be found in the Wingman
directory on our website.”

Dawley is also aware of confusion

among the traveling public. “I don’t think

the way we market our products has been

all that effective,” he admitted. To help

make the distinction between information

provided about operators and audited

operators, Wyvern is going to change the

name of its non-audited program to

Wyvern Data Registered. “It’s not a cer-
tification or stamp of approval,” he said,

“it’s registration of data, so if you sub-
scribe you can get access and benchmark it
if you want.”

False Sense of Security

At the Air Charter Safety Foundation’s

annual safety symposium in March, Sun-

walt reiterated his concerns about what

he said is the false sense of security that

ratings and assumed audits can give both

operators and their customers.

“I am a believer in having outside

of that gold standard aren’t necessarily

getting what they think they’re getting,

and that bothers me,” he said.

PRIA Records

The NTBS report on the Execlift accident noted issues with the two

operators. Wyvern offered one report

available in the Pilot Records Improve-

ment Act (PRIA) background check.

The captain had been terminated from

his previous job for not showing up for

scheduled training at a simulator train-

ing provider. The NTBS had to obtain

that information from a PRIA record

from that previous employer because the

document was not part of the captain’s

PRIA records.

The first officer’s PRIA records pro-

vided detailed information from his pre-

vious employer, including a letter from

that company’s check airman. Accord-

ing to the NTBS, “in ground school,

the first officer ‘started to fall behind’

and ‘struggled with memory items and

weight-and-balance problems, and in

the simulator he continued to struggle

with weight-and-balance problems and

did not know many items, charts,

outlets, profiles or flows. The letter further

stated that because of the first officer’s

‘lack of acceptable progression,’ he was

given the opportunity to fly as a

jumpseat observer for [seven] days and

obtained over 16 hours of observation

experience. However, upon comple-
tion of his time as an observer, the first

officer’s performance remained ‘signif-

icantly below acceptable standards.’”

On Feb. 27, 2015, his employment with

Sky King was terminated for ‘unsatisfactory

work performance.”

In its auditing process, Wyvern doesn’t have access to PRIA records,

Dawley explained. The responsibility for vetting of that information belongs to the opera-

tor. “When we go to do an audit,” he said,

“we don’t do the regulatory part; we

audit policy and process, how [the oper-

ator] conducts its business, whether it

subscribes to industry best practices, as
documented in our standards. We don’t

check records of pilots or aircraft; that’s

a regulatory and compliance issue with

the FAA.”

Moeggenberg said Argus offers what

it calls a TripCheq (charter evaluation

and qualification) service to charter users

at no cost. “It’s sort of like a confirma-
tion of what the operator is, and then

we include in the NTSB prob-


tations that had so many safety-related

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wouldn’t it
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» If your maintenance program transferred across models
» If your costs were stabilized and predictable

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Cloud-based system eases manual-management task

by Charles Alcock

When aircraft operators complain about regulatory burdens, the requirement to keep manuals up to date commonly springs to mind. Manuals covering operations, maintenance, safety and security all have to be kept current. Technically, an operator is in breach of its air operator certificate if even one seemingly minor update is not incorporated in a manual. By extension, this can invalidate its insurance and leave it exposed to liability. Specialist software is easing the burden, by a change introduced by regulators. The Web Manuals Compliance Libraries feature automatically compares a company’s manuals with the most current version of the requisite regulations and standards issued by authorities such as the FAA and EASA, as well as best practice requirements from bodies such as IATA, IBAC, and audit providers like Argus and Wyvern. This feature relies partly on collaboration with Switzerland-based compliance expert AeroEx, which monitors regulatory databases to identify changes in the implementing rules. The Web Manuals application informs those responsible for maintaining operators’ manuals that they need to edit and update text in specific parts of a document. “Sometimes, for example, the EASA might make changes to regulations that it doesn’t even indicate,” explained Web Manuals founder Martin Lidgard. “Our system will notify customers if a regulation relevant to them has been changed. There are something like 7,000 requirements for AOC holders, and if they are missing even one item they are not valid.”

Web Manuals is a Cloud-based system developed in HTML format and, according to Lidgard, this makes it more suitable for small and medium-size operators that might struggle to adapt to potentially more complex XML-formatted software that has to be updated.

Users pay monthly fees of €100 ($107) for each person who needs editing rights to manuals, and €6 ($6.42) for each person who simply needs to reference the manuals.

Improved Collaboration

Typically it would be an operator’s compliance manager who has to stay on top of required changes to manuals, but some aspects, such as flight- and duty-time limitations for aircrew, are handled by other managers within the organization. This is where the improvements to the collaboration features in Web Manuals version 6.1 are of particular value, because they make it easier for multiple colleagues to work in a document at the same time. “The system lets you know when someone is working on a document and the revision control feature kicks in to show where changes have been made,” Lidgard told AIN. “You can add a comment to explain why you’ve made the change, and a change log shows the changes word-by-word.”

Eighty operators worldwide are using the Web Manuals system. One of these is California-based operator ACI Jet, which says that the system has greatly simplified the process of maintaining manuals to support its 12-strong fleet. “We had 3,000 pages [of manuals],” explained ACI flight operations vice president Kellee Valentine. “Having suffered the frustrations of using Microsoft Word, converting documents to PDF format, then compiling them all, we knew we needed something better.”

ACI considered using Adobe’s Frame Maker program, but the ability to make revisions in far less time was a big factor in opting for Web Manuals. “Typically, it took a full eight hours with three people working on it to accomplish a revision change,” said Valentine. “Now a revision takes about three hours—if it’s a big one—and I can do it myself. So we’ve gone from 24 man hours to three.”

According to Valentine, it took the company four weeks to adopt Web Manuals. He highlighted the improvement to the compliance process as a particular benefit of the new system, explaining, “If an FAA inspector comes in and says, ‘How do you comply with x?’ we simply open the compliance library, and it links to all the references in our manual for the given regulation.”
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ROLLOVER FOLLOWS EMS EC135 HARD LANDING

Eurocopter EC135, Feb. 7, 2017, near Beattyville, Ky.—Two passengers and a pilot were uninjured when an Airbus Helicopters EC135P2+ was substantially damaged during a hard landing that resulted in a dynamic rollover near Beattyville, Ky. The helicopter departed from Mt. Sterling-Montgomery County Airport (KJOB) and was destined for an emergency medical service heliport near St. Helens, Ky., on a Part 135 flight. Wind was from the southwest at 35 knots. The helicopter came to rest on its right side, with all the main rotor blades destroyed. The tail boom was fractured at the horizontal stabilizer/fenestron mount; the tail rotor and vertical fin were intact and the blades were undamaged. The pilot’s windshield and sky-light were broken and the nose bow area was crushed.

SUPER KING AIR B200 HITS SHOPPING MALL ON TAKEOFF

Beechcraft Super King Air B200, Feb. 21, 2017, Melbourne-Essendon Airport, Australia—A Super King Air B200, registered VH-ZCR, was destroyed and the pilot and four passengers were killed after an unknown problem caused the aircraft to bank left and descend nose-first into the nearby DFO Essendon shopping center. No one on the ground was injured. Shortly after takeoff from Runway 17, the pilot radioed a Mayday. The Australian Transport Safety Bureau is investigating.

LIDER TÁXI AÉREO HAWKER 800 DEPARTS RUNWAY

Hawker 125-800B, Feb. 9, 2017, São Paulo-Guarulhos International Airport, São Paulo, Brazil—The main landing gear of a chartered Hawker 125-800B carrying a member of the Brazilian Federal Senate from Brasília to São Paulo collapsed on landing and the aircraft left the runway. No one was injured. On liftoff from Brasilia a main landing gear tire failed. The flight crew elected to continue to São Paulo, diverting to the longer runways of Guarulhos Airport from the planned destination of Congonhas Airport. On the landing rollout the left main landing gear collapsed as the aircraft veered off the runway.

SKYDIVE CARAVAN MAIN LANDING GEAR SNAPS ON TOUCHDOWN

Textron Cessna 208B, Feb. 9, 2017, Illertissen Airport, Germany—No one was injured when a 1993 Cessna 208B SuperVan 900 used in skydiving operations was damaged during landing at Illertissen Airport, Germany. Two pilots took the aircraft on a local training flight from Illertissen and were flying circuits when the right main landing gear snapped during a landing touchdown. The pilot flying executed a go-around and circled for 45 minutes before returning to land on the grass strip at Illertissen Airport. The extent of damage to the aircraft was unknown at press time.

AEROSPATIALE SA-341 GAZELLE DOWN IN KAZAKHSTAN

Aerospatiale SA-341, Feb. 25, 2017, Agyz, Kazakhstan—A Khazak-registered Gazelle crashed on February 25 while operating in Eastern Kazakhstan, killing the pilot. The single-turbine helicopter departed from the Urdzharsky area with two people on board, landing in Akshatau in the Atyagoz district to refuel before the accident. The aircraft was found the next day some 32 nm (60 km) northwest of Atyagoz. Poor weather was reported in the area at the time of the crash.

GROUND RESONANCE SUSPECTED IN A109E TRAINING ACCIDENT

AgustaWestland A109E, Aug. 2, 2016, Munich, Germany—Two pilots, one with a helicopter ATP certificate, and a helicopter flight instructor were on a training flight in a 1998 Agusta A109E flying circuits at Oberschleissheim Special Airfield (EDNX) demonstrating simulated engine failure when, at touchdown, the helicopter began rolling on its landing gear and was severely damaged, leaving the flight instructor with minor injuries. The helicopter was not equipped with a flight data recorder (FDR) or a cockpit voice recorder (CVR). Analysis of the data collecting units on the two engines did not reveal any viable information. The accident site was 300 feet (100 m) short of Runway 26 at Oberschleissheim Special Airfield. The helicopter came to a stop upright, slightly tilting left, with its landing gear extended. The left main landing gear collapsed outward, whereas the nose gear was twisted to the left. The nosewheel center mechanism pin was not engaged. The nosewheel locking lever in the cockpit was not completely in the “Lock” position. The bracket of the main gearbox penetrated the roof of the cabin and all main rotor blades and the main rotor head were damaged. The tail rotor drive shaft was torn off the main gearbox near the rotor brake. The four main rotor blade lead-lag-dampers and the three landing gear shock absorbers, including the nosewheel-lock, were removed for further examination at the manufacturer’s request. Experts from the helicopter manufacturer and the BFU at the facilities of the respective dumper supplier examined the wreckage, but could find no technical malfunction in the dampers or the nosewheel lock mechanism. Ground resonance, caused by a hard or uneven touchdown, is suspected, but not yet proven as a cause for this accident.

KING AIR 200 DAMAGED ON MISALIGNED TAKEOFF

Beechcraft King Air B200, Oct. 26, 2016, Brisbane Airport, Australia—The pilots of a King Air B200 departing Brisbane Airport mistook runway edge lighting for centerline lighting on a dark night takeoff, damaged the nosewheel and several runway edge lights. According to the pilot flying, the crew felt rushed when the tower controller gave them clearance to line up, and they were still completing the line-up checks when the controller issued a change in radio frequency. The pilots said the led lights distracted. Brisbane Airport taxiway and runway lights were operational on the night of the incident. The taxiground has green centerline lights and leadoff lights from the runway, but no lead-on lights from any intersection departure points. The leadoff lights are one-way lights and would not be visible to the pilot entering the runway. Runway 01 has white runway centerline lights, runway threshold lights and bright and medium-intensity runway lights along the runway edge. The pilot flying said his LED taxi light did not allow him to differentiate between centerline lighting and the runway edge lights. He confirmed that the taxi light was on during taxi and takeoff; however, he was uncertain whether the landing light was switched on during takeoff. As they began the takeoff the pilots realized something was odd and realigned the aircraft on the runway centerline. Only after airport ground personnel found the damaged lighting was it clear the aircraft had rolled along the runway edge. The Australian Transport Safety Bureau (ATSB) has a Pilot Information Card available to pilots to help them identify risk factors for misaligned takeoffs.

CESSNA CARAVAN LOST POWER, LANDED ON TAXIWAY

Cessna 208 Caravan, Nov. 11, 2016, Darwin Airport, Northern Territory, Australia—A missing fuel line locking plate allowed a fuel transfer tube to slide out of its nozzle adapter gradually; eventually it backed out far enough that fuel pressure leaked during a takeoff, causing the engine to lose power. The training pilot and flight instructor initiated a 180-degree descent turning back to the airport, landing on Taxiway A at Darwin Airport. The Australian Transport Safety Bureau (ATSB) noted that the aircraft had flown 68 hours since mechanics had left the critical plate off the fuel transfer tube in the engine. The aircraft departed with a 10- to 15-knot headwind with two pilots and 1,984 pounds (900 kg) of fuel. The takeoff was normal. At about 500 feet, the trainer pilot reduced the flap setting from the takeoff setting to 20 degrees of deflection. At this time, the instructor noted the climb speed reducing while the trainer continued to maintain the nose attitude for best angle of climb. The instructor heard the engine lose power and saw a thin film of fuel on the windshield. He saw the engine torque, fuel flow, inter-turbine temperature and airspeed wind down. As the airspeed fell to 60 knots, the instructor took control. He felt a strong nose-down force through the control column and the aircraft pitched down. The instructor conveyed a PAN emergency to the air traffic control tower. He recovered the aircraft to 85 knots and saw an area to the left suitable for a forced landing. In the turn toward that area he unlocked the emergency power lever and attempted to restore engine power. The engine did not respond. The flight instructor chose to continue the turn back to the airport because he saw that the headwind, when it sheared to a tailwind, would help them reach the airport environment. He also added 30 degrees of flaps to provide a short zoom climb to clear two hangars and an area of trees before settling onto the taxiway. The ATSB noted that the maneuver was successful despite the low altitude because of the pilot’s rapid recognition of the problem, application of best glide attitude and favorable wind/weather conditions.
Restructured ATC

Continued from page 47

vitality of numerous businesses and communities, small and large, depend on the U.S. aviation system. We must not weaken this strong foundation.

The opposition was universally shared by the major business and general aviation groups. NATA president and CEO Martin Hiller expressed disappointment in the administration’s stance and said, “We believe Transportation Secretary Chao’s call during her confirmation hearing for national dialogue and consensus is a more appropriate way to approach this issue.”

The proposal to separate ATC from the FAA “simply poses too many leaps of faith,” he added.

AOPA president Mark Baker, meanwhile, stressed that the association will continue to oppose proposals that involve user fees. Business and general aviation advocates have noted that such a proposal has an uphill climb on Capitol Hill, where most Democrats, some of the more conservative Republicans and appropriations leaders have stated opposition. GAMA conservative Republicans and appropriations most Democrats, some of the more con-

But those proposals always faltered because they would remove a certain degree of congressional oversight, something that many lawmakers have continued to oppose firmly.

The Appropriations Committee leaders restated their opposition in February, with both the top committee Republicans and Democrats writing a letter to their colleagues—before the Trump proposal was released—stating that, “The public would not be well served by exempting any part of the FAA from annual oversight” and expressing concern that progress on NextGen “would be lost” should ATC be separated from the FAA. “It does not appear to make sense to break apart the FAA, an essential part of our success in aviation,” they had said.

The battle lines, which have long been drawn on Capitol Hill, appear only to have dug in deeper after the Trump Administration revealed its stance.

Shuster issued a statement hailing the proposed ATC spinoff. “For too long, the federal government has been the impediment in updating our ATC operation to a world-class, state-of-the-art system,” Shuster declared. “Like [they do for] any transformative change in Washington, entrenched interest groups will do and say anything to protect their parochial interests. But the facts are not on their side. The President’s budget rejects adherence to the status quo, and I applaud his leadership to disrupt the old way of thinking.”

The House Transportation and Infrastructure Committee’s ranking Demo-

At the Trump Administration’s “Skinny Budget” on several counts, starting with what critics of the ATC spinoff describe as a privatization. “For the last two years, opponents of this short-sighted plan have raised serious concerns about whether ATC privatization would guarantee safety, protect national security, expedite new technology and keep our aviation system solvent,” DeFazio said.

“Proponents have failed to answer any of the serious questions we have raised. ATC privatization will not benefit taxpayers, who will be on the hook for bailing out the private ATC corporation if it fails.”

In the Senate, Commerce Commit-
tee chairman John Thune (R-S.D.) has remained open to the concept of ATC reform, but has been unwilling to fight for a proposal he feels has little chance of succeeding on the Senate floor. The committee’s ranking Democrat, Bill Nel-

As for the business and general aviation organizations, they said this would be an education process.

“NATA will continue to work with the new administration and Congress toward a more efficient FAA, with a priority on educating them about the risks posed by handing over our nation’s air traffic control system to special interests,” Hiller said.

“We continue to welcome the renewed focus in Washington on infrastructure investment, including for aviation,” Bolen added. “We will keep working with Con-
gress, not on a distracting debate over ATC privatization, but on truly modern-
izing the aviation system, with policies that offer targeted solutions to identi-
fied challenges. That’s the best way to ensure that all Americans have access to our nation’s critical aviation infrastructure, five, 10 and 25 years from now.”

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Pre-Owned Update by Mark Phelps

Lighter market gathers steam, and focus shifts to North America

Large-cabin business jets continue to slump in the pre-owned market while small and midsize jets have shown signs of resurgent sales, according to AircraftPost founder and president Dennis Rousseau. The improvement is hardly what anyone would call a “recovery,” but perhaps a glimmer of a correction to what has been a spiral of depreciating values, he said.

Rousseau put specific numbers to the spiral. He said the pre-recession economic “life cycle” for a business jet was about 30 years, depreciating at an average of 3 percent per year over year. “Now, it’s 11 to 27 percent per year over year,” he said. And the average useful lifetime of a business jet as an asset has compressed to 23 years, from new to “scrap.”

Of course, that’s good news for buyers, and even for those with a good reason to upgrade. For example, Taylor Guitars recently swapped its Hawker 850XP (which it bought in the early 2000s, during that recession) for a Gulfstream G450. According to AircraftPost data, a 2008 G450 had an average selling price of $22.8 million in 2014. That nosedived to $12.7 million last year, a drop of 46 percent in two years. Taylor Guitars envisioned the need for a legitimate long-range jet for sales trips, as well as missions to seek out and regenerate the global supply of exotic tonewoods for its instruments. For cofounders Kurt Listug and Bob Taylor, the market forces aligned perfectly, since the hit they took on the value of their Hawker was a pittance compared with what they saved on the Gulfstream.

In the midsize range, Rousseau sees a similar increase in interest in the Citation XLS+, for example. He said, “It has the range of more expensive jets, a reasonable cabin height and average prices have dropped into the $6 millions—about $6.9 million for a 2011 model.” Of 219 built, 16 percent of the XLS+ fleet was on the pre-owned market last year, compared with 12.9 percent in 2015, according to AircraftPost. The combination of practical performance and comfort and a drop in price have made the XLS+ a strong seller in recent months. Rousseau noted a similar pattern with Citation CJ3s and CJ4s.

Bright Spot in North America

Another reason for a rebound in small- and midsize-jet sales is the fast fade of so-called emerging markets such as Russia and China. The two held great promise a few years ago, but international sanctions against Russia and China’s government crackdown on corruption and its cultural tone shift to “austerity” mode have put the speed brakes on hopes for growth.

That means the market has shifted back to North America, where buyers are savvier about the benefits of small- and midsize-cabin jets. The general aviation infrastructure is also better able to accommodate a wider range of aircraft sizes and types. One reason for this is the fact that, in the U.S., for example, aviation grew from the grass roots up; early “barnstormers” evolved over decades into today’s airlines. In China and other emerging markets, the opposite is true. “Air travel” started with airlines, often government-sponsored. So expanding the general aviation infrastructure is a top-down process, and not an easy one to sell to average citizens, even those whose businesses could benefit from the flexibility of general aviation.

Another midsize jet that Rousseau notes is the G200, which saw average prices dip below $7 million. AircraftPost lists 28 G200s on the market, 11.4 percent of the active fleet. The average model year is 2005, with asking prices ranging from a low of $2.69 million to a high of $7.8 million. Average time to sell is posted at 342 days for a total absorption rate of 9.3 months, though Rousseau expects that time to shrink as absorption rate of 9.3 months, though Rousseau expects that time to shrink as absorption rate of 9.3 months, though Rousseau expects that time to shrink as absorption rate of 9.3 months, though Rousseau expects that time to shrink as absorption rate of 9.3 months, though Rousseau expects that time to shrink as absorption rate of 9.3 months, though Rousseau expects that time to shrink as absorption rate of 9.3 months, though Rousseau expects that time to shrink as absorption rate of 9.3 months, though Rousseau expects that time to shrink as absorption rate of 9.3 months, though Rousseau expects that time to shrink as absorption rate of 9.3 months, though Rousseau expects that time to shrink as absorption rate of 9.3 months, though Rousseau expects that time to shrink as absorption rate of 9.3 months, though Rousseau expects that time to shrink as absorption rate of 9.3 months, though Rousseau expects that time to shrink as absorption rate of 9.3 months, though Rousseau expects that time to shrink as absorption rate of 9.3 months, though Rousseau expects that time to shrink as absorption rate of 9.3 months, though Rousseau expects that time to shrink as absorption rate of 9.3 months, though Rousseau expects that time to shrink as
**Within 6 Months**

**April 24, 2017**

**COMPLIANCE DUE**

**Part 135 Rotorcraft Radio Altimeters**

Under revised Part 135.160, rotorcraft must be equipped with an operable FAA-approved radio altimeter, or an FAA-approved device that incorporates a radio altimeter, after April 24, 2017. Deviations from this requirement can be authorized for helicopters in which radio altimeters cannot physically be installed in the cockpit. The request for deviation authority is applicable to rotorcraft with an mtow no greater than 2,950 pounds. The radio altimeter mandate is contained in the final rule upgrading private, air-taxi and air ambulance helicopter operations, published on Feb. 21, 2014.

**April 30, 2017**

**Estimated Finish for Southern Calif. ATC Redesign**

From November 2016 through April 2017, the FAA will phase in the Southern California Metroplex (SoCal Metroplex) Project, which involves replacing dozens of conventional ATC procedures with satellite-based procedures. Before publishing the procedures, however, the agency will conduct public meetings to inform people about the changes. Dates for these meetings will be announced on the FAA’s NextGen Community Engagement website for the SoCal Metroplex project. The project will affect instrument arrivals and departures for 21 airports in Southern California.

**May 1, 2017**

**Medical Certification for Certain Private Pilots**

Private pilots may fly certain small aircraft under limited conditions without having to meet FAA medical certification requirements under this new rule. Pilots who meet eligibility requirements and qualify for an FAA medical exemption are limited to small airplanes (turbine or non-turbine) with no more than six seats, a maximum airspeed of 250 kias and a maximum altitude of 18,000 ft msl. The aircraft may be flown IFR or VFR but cannot be for hire or compensation.

**Aug. 30, 2017**

**FAR Part 23 Rewrite Effective Date**

The FAA’s rewrite of Part 23 small airplane certification rule goes into effect on Aug. 30, 2017. The revised airworthiness standards will apply to airplanes in the normal, utility, acrobatic and commuter categories, and replace current “prescriptive design requirements with performance-based” airworthiness standards. These standards also replace the current weight and propulsion divisions with “performance- and risk-based” divisions of airplanes with a maximum seating capacity of 19 passengers or less and a mtow of 19,000 pounds or less. The new rules enact additional airworthiness standards to address certification for flight in icing conditions, enhanced stall characteristics and minimum control speeds for multiengine airplanes. Additionally, revised rules will apply to Part 91, 121 and 135 operations to correspond with the new airworthiness standards.

**Within 12 Months**

**Dec. 7, 2017 and Jan. 30, 2020**

**Expansion of Datalink Com in North Atlantic**

Phase 2 of the North Atlantic datalink mandate began with Phase 2a in February 2015, at which time flights within the North Atlantic Tracks (NAT) between FL350 and FL390 were required to be equipped with Fans 1/A controller-pilot datalink communications (CPDLC) and ADS-C. The program expands to these altitudes in the entire ICAO NAT region on Dec. 7, 2017, and to all flights in this region above FL290 on Jan. 30, 2020, a month sooner than the previous revised date.

**Jan. 1, 2018**

**Deadline for European 8.33-kHz Spacing**

Starting Jan. 1, 2018, aircraft might not be able to operate in any EU member states’ controlled airspace unless they are equipped with communications systems that have 8.33-kHz voice-channel spacing. Eurocontrol says extending 8.33 kHz below FL195 down to ground level is important, as “Europe has a known shortage of voice communication frequencies.” The 8.33-kHz requirement for higher altitudes in controlled airspace has been in effect for some time. According to Eurocontrol, the consequences should this shortage of com frequencies not be addressed are “significant: there will be more air traffic delays, it will be harder to implement safety improvements, and we will lose flexibility in introducing operational enhancements.”

**June 16, 2018 and Jan. 1, 2019**

**Upgraded CVRs and Underwater Locators Required**

New regulations from the European Aviation Safety Agency (EASA) will require upgraded CVRs and underwater locating devices (ULDs) to be installed. Starting June 16, 2018, ULDs must be capable of transmitting for at least 90 days instead of 30 days. By Jan. 1, 2019, airplanes with an mtow of at least 59,500 pounds with more than 19 passenger seats and performing transoceanic flights must be retrofitted with an “additional ULD with a very long detection range.” Also by Jan. 1, 2019, all CVRs with a 30-minute recording duration must be replaced by units with two-hour recording capability. Additionally, CVRs recording on magnetic tape must be replaced by solid-state units.

**Nov. 8, 2018**

**ICAO Adopts 15-min. Position Reporting**

The International Civil Aviation Organization Council adopted a tracking standard for certain international flights that requires crews to report their aircraft’s position at least every 15 minutes. It will become applicable Nov. 8, 2018. The new requirement will be made formal as Amendment 39 to Annex 6—Operation of Aircraft, Part I. The new standard is the outcome of recommendations stemming from the disappearance of the 777 operating Malaysia Airlines Flight MH170 while en route from Kuala Lumpur to Beijing, China, on March 8, 2014. The search for the 777 was called off in January this year.
Marco Tulio Pellegrini was appointed CEO of Embraer’s OGMA joint venture in Portugal. Pellegrini steps into his new role after serving as president and CEO of Embraer Executive Jets.

Embry-Riddle Aeronautical University named Barry Butler president. He joins Embry-Riddle from University of Denver, where he had served for 33 years and most recently was executive v-p and provost.

Jet Aviation appointed Hakan Tin managing director of its Vienna operation. Tin has served as sales director for Jet Aviation in Vienna since September 2015.

Dan Smotherman left Flexjet for Passar Aerospace as senior v-p, global ATM.

Most recently Smiley was vice president of system operations services for the FAA.

FlightSafety International appointed John Van Maren vice president, simulation products and services. Maren most recently was executive v-p and provost. John Van Maren has held numerous roles with Los Angeles World Airports, Portland International Airport and an international carrier.

Jenny Showalter joined Aviation Personnel International as manager, candidate services. Showalter brings two decades of business aviation service to the role, having previously served as executive director for the Florida Aviation Business Association and as customer service manager/director of first impressions for Showalter Flying Service. Showalter succeeds Jenniffer Steele, who was named director, client services.

FlightSafety International promoted Edward Koharik to general manager, visual systems. He succeeds Jon Hester, who retired after a 35-year career with FSI designing, developing and supporting flight simulation products and services. Koharik joined FlightSafety in October 2015 after 23 years in the U.S. Air Force.

Bruce Webb has taken over as director of aviation education and community outreach for Airbus Helicopters. Webb has served as chief pilot since 2000.

Kerry Heiss joined Western Aircraft to lead the MRO sales and marketing team. Heiss previously served as a senior manager of marketing and product management for BendixKing Avionics in Albuquerque, N.M.

West Star Aviation appointed David Feuerhak avionics technical sales manager. Feuerhak joined West Star in 2005 and has since served as avionics lead installer, avionics supervisor, avionics manager and avionics system engineer.

Jet Aviation’s facility in St. Louis named Pat Fenwick MRO manager. Fenwick has spent 23 years at Jet Aviation, and has experience across MRO disciplines.

Constant Aviation named Hector Soto South Central regional sales manager.

Jody Jaraczewski was appointed director of sales for Infinity Aircraft Services. Previously Jaraczewski was director of sales and marketing for Spirit Aeronautics and Executive Air.

Interflight named Paul Cantillon commercial manager. Cantillon has six years of business aviation operational experience with JetClub and Optimum Aviation.

Ken Stewart has rejoined Guardian Mobility as business development manager.

Innotech Aviation Group appointed Steve Dufresne regional sales manager. Dufresne has 30 years of aviation experience, formerly serving with Bombardier’s pre-owned aircraft sales department, Aerospace Concepts and Zenith Jet.

Heidi Fedak was promoted to director of corporate communications for Gulfstream Aerospace. Fedak, most recently senior manager, social media and external communications, joined Gulfstream in 2008 after serving as editor-in-chief of the Savannah, Ga.-area newspaper Hardieville Today.

FlightSafety International promoted Nathalie Raby to assistant manager of the company’s Paris-Le Bourget training facility. Raby joined FlightSafety in 2004 as an instructor at the Paris center and has since served as assistant program manager and manager of the Embraer E170 and ERJ-145 training programs, assistant director of training and most recently as director of training.

Summit Helicopters founder Carl Milko is the recipient of the Twirly Birds Les Morris award this year. Milko began his career in the industry as a helicopter pilot in Vietnam in 1965. After Vietnam, Milko earned a master’s degree in forestry and worked for Evergreen Helicopters.

He then led with four other industry peers to found Summit Helicopters in 1982. Under his leadership, the company now has 70 employees and 15 aircraft.

Milko has also been recognized for his actions as a JetRanger pilot, when he rescued stranded citizens during a flood in Roanoke, Va., in 1985.

Each year, the Twirly Birds presents the Les Morris award in recognition of lifetime achievement. Recipients are individuals who have significantly contributed to the helicopter industry. Serge Ikorsky presented Milko with the award during the annual Twirly Birds meeting on March 7 in Dallas.

Dr. John Leverton received the 2017 Bell Helicopter Lifetime Achievement Award at Heli-Expo. The award recognizes the achievements of individuals and organizations in the international helicopter community. With a bachelor’s degree in engineering, a master’s degree in acoustics and a doctorate in helicopter aero-acoustics, Leverton has served as a consultant, lecturer, chair, director and vice president throughout his career in the helicopter industry.

His career began with Westland Helicopters, and while he continued his studies at the Institute of Sound and Vibration at Southampton University, Leverton became interested in helicopter noise and environmental issues. Since community noise was becoming a serious concern in the UK at the time, Leverton decided that the issue should be studied from both the helicopter design and helicopter operations point of view. His idea became a significant design aspect when Westland turned its concern in the UK at the time, Leverton decided that the issue should be studied from both the helicopter design and helicopter operations point of view. His idea became a significant design aspect when Westland turned its acceptance of helicopters, environmental issues and public concern.

Later on, Leverton was asked to work on international noise certification, helicopter operations and heliport/heliport design. He published papers and gave lectures on aspects of helicopter noise and heliport design.

As a consultant for manufacturers (among them Bell Helicopter), he advised companies about noise measurement, public acceptance of helicopters, environmental assessment issues and civil issues.

He went on to serve as an advisor to the American Petroleum Institute on helidecks and to HAI regarding ICAO and FAA regulations as well as helicopter noise.

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Final Flights

Irwin Stambler, an AIN contributor who became known for his reference books in the music industry, died on February 10 in Los Angeles. He was 92.

Stambler began his career as an aeronautical engineer, designing aircraft parts. But his varied interests led him to write dozens of books on topics from space missions to a sports biography. Among his books was The Encyclopedia of Pop, Rock & Soul (1974), considered one of the earliest sourcebooks on pop music.

He also created encyclopedias on Broadway musicals, folk and country and Western music, interviewing musicians across genres. Stambler wrote for numerous publications, among them Space/Aeronautics magazine. He contributed to AIN over three decades beginning in the 1980s.

Neil Looy, who founded Corporate Air Parts (CAP) in 1983, died on February 3 at the age of 67.

Looy, a native of Van Nuys, Calif., logged 34 years of flying experience in aircraft ranging from the F-4 Phantom for the U.S. Air Force and DC-10 for McDonnell Douglas to a Lockheed JetStar for television producer Glen Larson. He held Learjet and Gulfstream type ratings, as well as DC-10, DC-8 and 727 flight engineer ratings.

A founding member of the Motion Picture Pilots Association, Looy served as a movie pilot and aerial coordinator for 23 years and worked on numerous major projects for the motion picture and television industry.

He had multiple business interests, heading Aerobatic Film Systems, founding a repair station, along with serving as president of CAP. Looy was one of the first tenants at Clay Lacy’s building in Van Nuys, Calif.

Awards & Honors

Leverton has served as a consultant, lecturer, chair, director and vice president throughout his career in the helicopter industry.
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