

FIRST

MAKING
**BUSINESS
AVIATION**
A BOARDROOM ISSUE

SPECIAL PRE-PRINT REPORT BY FIRST MAGAZINE, CELEBRATING EBACE 2017

An Ever-Resilient Industry Readies For A Much-Needed Rebound

Business Aviation has had its share of ups and downs certainly, but being a cyclical industry and subject to the whims of global economic conditions, it has remained resilient and persistent over the years. Industry leaders have learned to cope amazingly well, under the most trying conditions. As Ed Bolen, President and CEO of NBAA (National Business Aviation Association) notes, “It’s almost impossible to predict what we’ll see on the world stage over the next several years. But reliable indicators do point to continued, measured growth throughout the business aviation marketplace in the near-term. This follows several challenging years in the aftermath of the global economic recession of 2008-2009.”

As the industry continues to be in the healing process, confronting challenges as they arise, it’s no secret that the annual report on business aircraft deliveries worldwide, provided by the General Aviation Manufacturers Association (GAMA), was on the dismal side, as piston, and especially jet shipments, descended further. But surprisingly, turboprop deliveries actually increased in 2016. A welcome bright spot indeed and, hopefully, a harbinger of things to come.

The European Business Aviation Association (EBAA), marking its 17th year in

partnership with NBAA hosting the annual European Business Aviation Convention & Exhibition (EBACE) also shared the good news that business aviation traffic figures rose for the fifth consecutive month in March compared to the same period in 2016. As Brandon Mitchener, the recently appointed Chief Executive Officer of EBAA was pleased to report, “After several years of sluggish growth, the signs are favourable for a new direction in 2017, with first quarter traffic figures up 6.7 percent from a year ago. In fact, we haven’t seen these levels of growth for a decade.” The monthly breakdown of total traffic in departures, arrivals, internals and overflights in the Single European Sky area for the first quarter was 6.4 percent in January, 3.6 percent in February and 9.0 percent in March. But recognising that such numbers can change direction quickly for any number of reasons, Mitchener nevertheless added that, “I am cautiously optimistic for the future outlook for our industry.” We certainly hope the winning streak continues for this vital industry. How vital? According to a 2016 Booz Allen Hamilton study on the “Economic Impact of Business Aviation in Europe,” it credits the industry with EUR 100 billion in annual turnover; 400,000 jobs; EUR one

billion in time saved annually by European companies using business aviation for their employees; and EUR 2,840 in average productivity gains per passenger, per trip. (For more information, visit www.ebaa.org.)

Manufacturers’ R&D Investments Drive Business Aviation Industry

In a sense, manufacturers are continuing to create their own “pent-up demand” for new products and technologies across all sectors of the industry, while lending a measure of stability regardless of adverse economic conditions. Historically, they realise only too well that there will be downturns to varying degrees and lengths, followed by eventual recoveries—always have been. They want to be ready for the next recovery and are totally committed to making the investment it takes, or their competitors will. Larger companies with deep pockets have an advantage here, not so with start-ups, unless of course they are well funded by understanding backers.

Thus, over the past several years, as always, there have been a number of new “clean sheet” or improved aircraft introduced which are now in various stages of development toward certification and initial deliveries, or aircraft that have already entered service for customers. >

BUSINESS AVIATION FEATURE

Gulfstream: G500 and G600

The Gulfstream G500, with a 5,000 nautical mile (nm) range, made its first flight just six months after the program was launched. There are now five aircraft in the test program and certification should be awarded this year, with initial deliveries in 2018. The longer range G600, at 6,200 nm, is also in flight test. Both aircraft have an impressive maximum speed of Mach 0.925—nearly the speed of sound, a maximum over-the-weather ceiling of 51,000 ft. and can carry up to 19 passengers. www.gulfstream.com.

Honda Aircraft: HondaJet

The light HondaJet took a long time coming to market but has enjoyed widespread approval following certification and entering service. More than 100 of the 5-6 passenger HondaJets are on order, the company has established distribution in Europe and it's "tomorrow the world," as the saying goes. Its unique feature is the Over-The-Wing Engine Mount, which reduces drag and allows more cabin room, since no hardware is mounted on the fuselage. It also has a super-efficient laminar flow wing and lightweight composite fuselage. The maximum cruise speed is over 422 knots, propelled by two GE-Honda engines; and the maximum range is over 1,223 nm. www.hondajet.com.

Textron Aviation: Cessna Citation Latitude. Cessna Citation Longitude

The first of the new Citation family, the midsize 7-9 passenger Latitude, was the best seller of 2016 in its category with more than 40 deliveries in 2016. It has a flat-floor, stand-up cabin and a range of 2,850 nm. Its sibling 8-10 passenger super-midsize Cessna Citation Longitude is now in its flight test program with certification expected in 2018. It has a 3,400 nm range, stand-up cabin; maximum cruise speed of 490 knots, and service ceiling of 45,000 feet. www.txtav.com.

Boeing Business Jets: BBJ MAX 7, BBJ MAX 8, BBJ MAX 9

The BBJ MAX is the corporate configured version of the 737 MAX series of commercial airliners. All 737 MAX models are in flight test and it is Boeing's fastest selling aircraft ever. The maximum range of the BBJ MAX 7 is 7,000 nm; the BBJ MAX 8 at 6,555 nm and the BBJ MAX 9—the largest—at 6,375 nm. There are also orders for all three BBJ MAX models. Boeing



The Gulfstream G500 and G600 have a maximum speed of Mach 0.925



HondaJet's Over-The-Wing Engine Mount cuts drag; ups performance

Business Jets, the leader in what might be called the "corporate airliner" category, offers a total of 11 BBJ models, including ultra-long range aircraft with ranges of up to 10,000 nm. All BBJ MAX models feature new fuel-efficient engines, new avionics and advanced "winglets." www.boeing.com/commercial/bbj.

Dassault Falcon Jet: Falcon 8X

The ultra-long range Falcon 8X is based on the hugely successful 7X but features a longer cabin for 12-16 passengers and a longer range 6,450 nm. Powered by three Pratt & Whitney 6.722 lb. thrust engines, it features a new wing with drag-reducing winglets and a maximum cruise of Mach 0.90. This long-ranger has excellent



Cessna's Citation Latitude is the best-selling midsize business jet of all



Boeing Business Jets offers ultra-long range BBJ models up to 10,000 nm

short-field performance needing only 6,000 ft. for take-off and 2,150 ft. for landing. Think London City Airport. The Falcon 8X is certified and deliveries are being made worldwide from a healthy order book. www.dassaultfalcon.com.

Bombardier Business Jets: Global 7000

The ultra-long range Global 7000 made its first flight shortly after NBAA 2016 and is now in its full flight test program. The company's 17-19 passenger flagship business jet features a spacious 54' 7" long cabin with four purpose built separate zones, plus a crew rest area. Powered by two new GE Passport engines, each with 16,500 lb. thrust, it will have a maximum speed of Mach 0.90, a 7,400 nm range and a 51,000 ft. ceiling. The Global 7000 is equipped with the advanced Bombardier Vision Flight Deck. Looking ahead, an even larger Global 8000 with a longer range of 7,900 nm has been discussed, but no commitment made. The first order of business is to get the Global 7000 certified and into service. www.businessaircraft.bombardier.com.

Pilatus Aircraft: Pilatus PC-24

Pilatus Aircraft, famed for its turboprop aircraft, which includes the best-selling turboprop of all, the PC-12, rolled out its first jet model, the PC-24, which first flew in May, 2015. There are now three aircraft in the test program, which is running smoothly and on schedule, as one might expect from the Swiss. Like the PC-12, it features an extra-large cargo door; unique for any business jet. The roomy 6-8 passenger cabin converts easily from passenger to cargo configuration or a combination of both. The people at Pilatus dubbed the aircraft the "Super Versatile Jet," alluding to its short field performance, which can include rough airstrips if necessary and, of course, the standard cargo door. Its maximum cruise speed is 425 knots, with a certified ceiling of 45,000 ft. and a takeoff run of only 2,690 ft. The PC-24 is a fine example of "Swiss Precision" but you'll have to wait a while to get one as 84 aircraft were sold early on in the program. For more details and updates, visit www.pilatus-aircraft.com.


Cirrus Aircraft: Cirrus Vision SF50

The distinctive V-Tail Cirrus Vision® is an entry-level, single engine very light jet (VLJ) or better described as a "personal jet." The aircraft was certified in October 2016 and



Bombardier's Global 7000, now in flight test, will have a 7,400 nm range

deliveries have begun. It features a large cabin with adjustable seats and plenty of legroom. Enough space, we're told, for up to five adults and two children. The cockpit of the Cirrus Vision features the proprietary Cirrus Perspective Touch™ by Garmin flight deck, which features a wide array of sophisticated but easy-to-use navigation capabilities and safety features. The aircraft has a respectable range of 1,200 nm, a maximum cruise speed of 300 knots and a 28,000 ft. ceiling. The aircraft will feature the proven life-saving Cirrus Airframe Parachute System (CAPS®) Cirrus Aircraft is the only General Aviation manufacturer that has incorporated a certified parachute designed to support the entire airplane. According to a Cirrus spokesman, more than 140 people have been saved by CAPS during emergency situations. That would have to be a strong selling point and Cirrus reportedly has "nearly 600 Cirrus Vision production positions reserved." Apparently there is plenty of ramping up to do at Cirrus Aviation. For more information on Cirrus Aviation and its new Cirrus Vision personal jet, please visit www.cirrusaircraft.com.

And it would be a safe bet to assume that as you're reading this the various manufacturers already have people planning the "next best thing" in the business aviation industry, for which it is surely grateful. For more information on the associations supporting and promoting business aviation, please visit the European Business Aviation Association; www.ebaa.com, the National Business Aviation Association; www.nbaa.org or the General Aviation Manufacturers Association; www.gama.aero. 



The versatile Falcon 8X is a short-field performer with a 6,450 nm range



The new Pilatus PC-24 is the only business jet to feature a cargo door



The light Cirrus Vision SF50 "personal" jet is now certified and in service