January 2018

# Dassault pulls plug on Falcon 5X in favour of new project

French manufacturer Dassault announced the cancellation of its ill-fated Falcon 5X ultra-wide business jet programme on 13 December. The move followed repeated delays in the development of the Silvercrest engine by its compatriot Safran. It will however be replaced by a new Falcon model, which will be powered by the Pratt & Whitney Canada PW800.

The delivery of the 12,000lb-thrust class Silvercrest engines was originally planned for the end of 2013 to fit in with the 5X flight test schedule. But Safran has faced recurrent technical issues during the programme's development, forcing Dassault to delay entry into service from its target date of 2017 to 2020. This led to a number of 5X order cancellations, including 12 in 2016.

Dassault CEO Eric Trappier said the continued issues with the engines made the 2020 service entry date impossible to achieve. "Considering the magnitude of the risks involved both on the technical and schedule aspects of the Silvercrest programme, Dassault has initiated the termination process of the Silvercrest contract, leading to the end of the Falcon 5X programme and plans to start negotiations with Safran," he said in a statement.

"There is still a strong market need for a brand new long-range aircraft with a very large cabin, so I have decided to launch a new Falcon project powered by Pratt & Whitney Canada engines." The as yet unnamed aircraft is due for certification and service entry in 2022. It will share the same cabin cross-section as the 5X and is expected to boast a range of 10,186km (5,500nm).

# European traffic on the up

European business aviation traffic posted an overall annual increase of 4% in 2017, according to specialist analyst WINGX Advance, despite a small year-on-year dip for the month of December. Flight activity for December showed a slightly decline, mainly from Switzerland, France, Germany and Italy. This was largely caused by a weather related fall in light aircraft activity, suggested WINGX, while jet operations increased by 6% largely on the back of increasing charter activity. In terms of the full year, traffic from both Turkey and Russia increased but it must be remembered that this was from a low base in 2016 caused by political challenges. Overall, traffic from Western Europe increased by 3% in comparison with the previous year.

## Boeing and Embraer confirm merger discussions

US aerospace giant Boeing and Brazilian jet maker Embraer confirmed on 21 December that they were holding talks over a potential merger. The move came only two months after Boeing's European rival Airbus announced a deal to take control of Bombardier's C Series regional passenger jet programme.

"There is no guarantee a transaction will result from these discussions," said a joint statement. "Boeing and Embraer do not intend to make any additional comments regarding these discussions." In addition to requiring shareholder and regulatory approval, the Brazilian government holds a golden share and could veto any takeover bid. The business jet market creates some intriguing possibilities, especially in view of Embraer's existing lack of an ultra-long-range, large-cabin product.

#### 2018 - A year spent flat lining?

The corporate aviation market in 2018 has been variously predicted to be 'flat', 'uninspiring' or a 'reset year' before growth returns in 2019. Both manufacturers and market analysts agree that while 2018 will see a fall in deliveries of existing models, this decline will be offset by the entry into service of new designs including the Gulfstream G500, Cessna Citation Longitude and Bombardier Global 7000. By way of example, specialist advisory service JetNet iQ estimates that business jet deliveries will total 662 aircraft in 2018, a modest uplift from 653 in 2017. The increase should be qualified, however, because it is expected to include over 40 of the new Sirrus SF50 Vision, of which only 10 were delivered during 2017.

### Nigerian airport security comes under scrutiny

A Vistajet Challenger 605 was robbed shortly after arrival at Murtala Muhammed Airport in Lagos, Nigeria. The rear baggage door was opened while the aircraft was taxiing to customs and a bag belonging to a flight attendant was removed. The culprit was not found. VistaJet confirmed in a statement that it had "prompted the local airport to implement stronger safety measures at all times". Security is the responsibility of the Federal Airports Authority of Nigeria (FAAN). It reportedly has only one operational vehicle available to escort aircraft to the ramp.

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Aircraft consultancy

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The spectrum of our expertise encompasses: technical and performance specifications of competing aircraft models - from small pistons and turboprops through the whole range of corporate jets to commercial airliners in both passenger and freight roles; research and detailed reporting on the operational history of individual airframes and operators both private and commercial; the registration and ownership requirements of registries worldwide; and the most suitable and efficient corporate structures for holding aviation assets. In a nutshell, we can add real value to the decision-making process.

# **AIRBORNE**

### Aerion and Lockheed Martin link up

Aerion Corporation and Lockheed Martin confirmed, at a joint press conference in Washington, D.C. on 15 December, that they had joined forces to explore further development of the Aerion AS2 supersonic business jet (SSBJ). The aircraft is slated for first flight in 2023, with service entry following certification in 2025. A memorandum of understanding between the two firms establishes a framework for the design, engineering, certification and production of the AS2. Also taking part in the press conference were executives from GE Aviation, which was announced as the chosen engine provider for the SSBJ last May. The order book for the AS2 is now fully open and new orders will join the order for 20 AS2 placed by fractional specialist Flexjet in November 2015.

In September 2014, Aerion announced an agreement with Airbus to assist in the design, production and certification of the AS2. Executive chairman Brian Barents described the new agreement with Lockheed Martin as an "evolving process". The link with Airbus continues but on a consultancy basis as and when the European manufacturer's expertise is required.

The joint press conference set out Lockheed Martin's commitment to the project and its experience in design of supersonic craft, including the iconic SR-71 Blackbird strategic reconnaissance aircraft. The collaboration also marks the manufacturer's return to the executive jet market having been responsible for launching the Lockheed Jetstar, the world's first purpose built business jet, in 1961.

### Jet Aviation adds Maltese AOC

At EBACE in May 2017 Jet Aviation announced a joint-venture agreement with Slovak operator Luxury Business Jets to establish a new management and charter operation in Malta. The application to establish an air operator certificate (AOC) was approved by Maltese authorities on 8 December. The company has already added a 19 seat Boeing Business Jet (BBJ) to the certificate with an Embraer Legacy due to follow shortly. The new AOC joins those already held by the company in Germany and Switzerland. According to Jürg Reuthinger, SVP of the company's management and charter operations "The additional AOC in the European Union allows aircraft owners and operators more flexibility in their choice of registrations and operation."

# Corporate aircraft news

Textron Aviation's Cessna Citation Hemisphere is to be powered by two Safran Silvercrest turbofans. In the wake of Dassault's cancellation of the Falcon 5X project due to ongoing problems with the new powerplant, industry observers were keen to see what impact these issues would have for Hemisphere which is due to make its first flight next year and enter service in 2020. In media statements Textrons Sarah Estes confirmed that it "remains committed" to the Silvercrest engine and "As we currently understand it, the latest Silvercrest status does not significantly impact engine deliveries for the Hemisphere program. We will continue to stay closely aligned on their progress and how it may affect the Hemisphere's development timeline." The twinjet Hemisphere was announced in 2015 and will accommodate up to 12 passengers and offer a range of some 8,334km.

Following its FAA and EASA certification on 8 December the Pilatus PC-24 twinjet is due to enter service with US fractional specialist PlaneSense in early March following crew training and familiarisation. The company expects to receive three examples in 2018.

In a recent investor day, Canadian manufacturer Bombardier confirmed that its new flagship Global 7000 remains on target to achieve certification later this year. Media statements however appeared to raise questions over the Global 8000 with a lack of a clear certification schedule and allusion to a lack of orders for the new longer range version of the Global. The company noted that it would confirm a certification schedule following service entry for the Global 7000, a clear reference to the intended transfer of resources to the 8000 programme after certification of the 7000. The 8000 is planned to offer the longest range of any corporate jet at some 14,631km and will accommodate up to 13 passengers. Both programmes were originally announced by the manufacturer in 2010 with the 7000 originally slated for service entry in 2016 with the 8000 due to follow a year later.



### AIRCRAFT FACT FILE \\

Boeing 737-500



#### **CATEGORY**

Heavy jet

**MANUFACTURER** 

Boeing, USA

#### **FNGINE**

2 x CFM Intl. CFM56-3C-1 turbofans

LENGTH WINGSPAN 28.90 m

RANGE MAX. SPEED

4,398 km 876 kmh

SEATING CAPACITY
Up to 132 in airline service

NO. OF CREW
2

MAXIMUM TAKE-OFF WEIGHT (MTOW)

60,550 kg

#### DESCRIPTION

The Boeing 737-500 is the smallest member of what is described as the 'second generation' of 737 commercial airliners. The -500 was designed as a direct replacement for the 737-200 classic and joined the larger -300 and -400 in airline service worldwide. The -500 received an initial order from US carrier Southwest Airlines when it placed an initial order for 20 examples in 1987. The -500 prototype flew for the first time in June 1989 and entered service with Southwest eight months later following FAA type certification. The -500 was marketed as a -200 replacement, which would provide considerable fuel savings and offer commonality of systems with the -300 and -400.

Most major users of the -500 have retired their fleets (Southwest did so in 2016) and many aircraft have found new homes with smaller passenger and cargo operators worldwide. A small number have also been converted for VIP use by both government air arms and private owners. Additionally, a number of aircraft are now in use with high-end charter operators.