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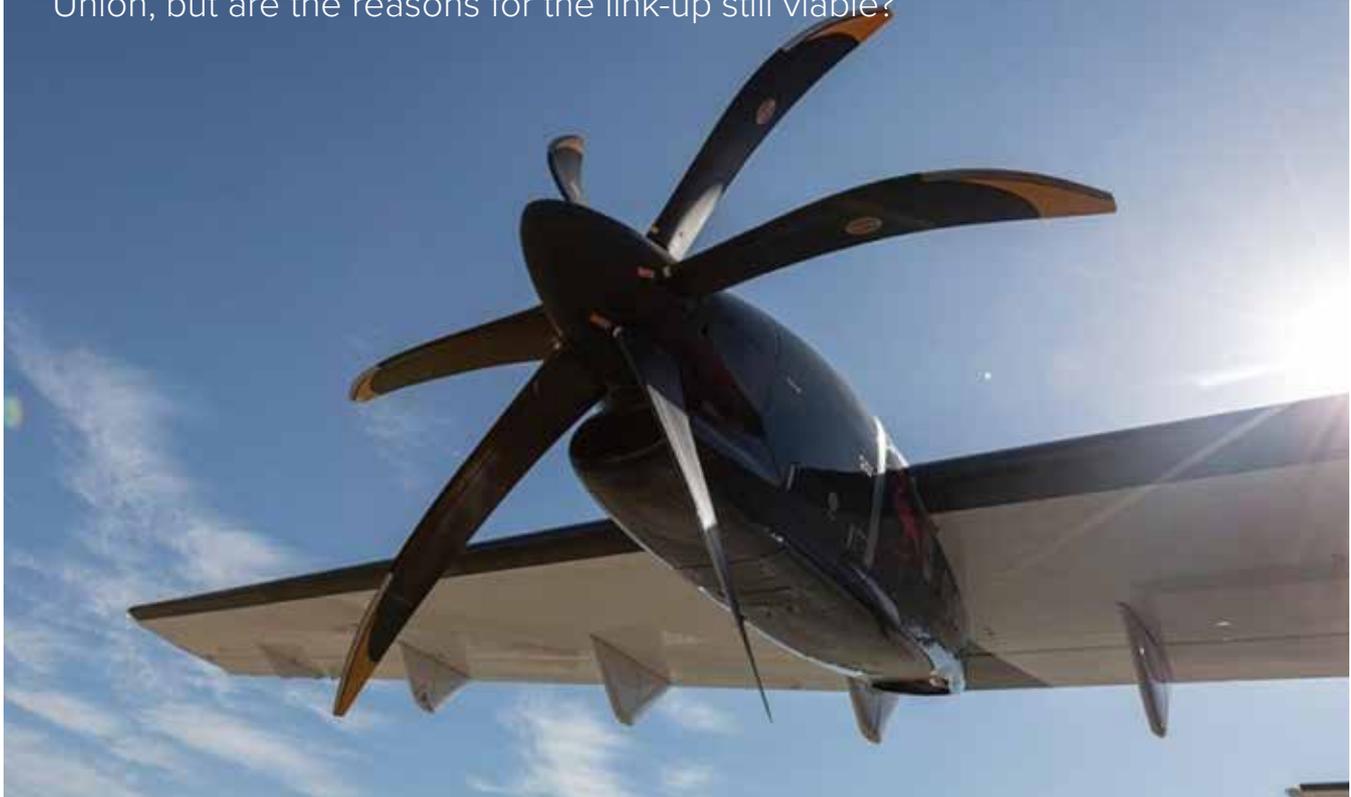
special supplement

Regional aircraft 2020



Stakes high for Boeing-Embraer joint venture

The two manufacturers are awaiting the green light from the European Union, but are the reasons for the link-up still viable?



After Brazil's recent approval for Boeing and Embraer's planned joint venture (JV), the two companies face one last hurdle to nudging the tie-up over the line – a green light from the European Union.

Speaking at the *Airfinance Journal* Dublin 2020 conference on 22 January, Embraer chief executive officer (CEO) John Slattery said the Brazilian company was targeting the second quarter of this year for antitrust approval from European regulators.

"We want to be respectful of the authorities and don't want to put a timeline but it feels like the second quarter of this year. We are doing anything to accelerate this," he said.

"We have been working on this transaction over the past 12 months. The operators are feeling the pain and want the transaction to close," added Slattery.

But while regulatory approval may be close, much has changed in the years since the joint venture was first mooted in 2017.

Max grounding impact

With the grounding of the 737 Max and the resulting shift in trading conditions and management at Boeing, the question is whether the original rationale for the tie-up is still intact?

In its most recent financial disclosure, Boeing put the cost of the grounding to date at more than \$18 billion.

The US manufacturer recently closed a \$12 billion facility from a syndicate of banks as its cash flow continues to be hit by the grounding.

The second consequence has been the purging of the senior Boeing management, that originally approved the joint venture. In October, Kevin McAllister was replaced by Stan Deal as president and CEO of Boeing Commercial Airplanes. Two months later, Boeing CEO Dennis Muilenburg was fired and replaced with chairman David Calhoun. With the financial strain of the Max ongoing, could the new CEO question the viability of

the joint venture with Embraer, or even call off the project completely?

Speaking on an analysts' call on 29 January, Calhoun said that Boeing was working towards the "full implementation of our Embraer partnership". But he disclosed little else on the topic.

Appraisers are divided on the prospects and advisability of pursuing the partnership.

"The Max grounding is diverting senior management attention and resources away from the JV but, ultimately, I think it will go through," says Doug Kelly, senior vice-president, asset valuation, Avitas.

"Clearly, this leaves Boeing in a challenged financial state," says Rob Morris, global head of consultancy at Ascend by Cirium. "They already spoke about having to go to the market to raise the \$5.5 billion committed to this, since I guess they spent the finance earmarked for this on Max compensation and other



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John Slattery, chief executive officer, Embraer

costs. “Now that Max has gone long and they have had to raise that \$12 billion load, perhaps some of that is earmarked for this JV. But with a new CEO, I wonder if there will be a fundamental review of the JV and it could potentially be cancelled since it is hard to see what benefit it brings to Boeing,” adds Morris.

Olga Razzhivina, senior ISTAT appraiser at Oriel, thinks the tie-up will get over the line.

“It is more likely that the JV becomes more important as the [737 Max] grounding continues. The fresh engineering resources can benefit both, addressing the Max issues and working on the new aircraft type – whatever shape it will take,” she says.

Kelly believes that closing the joint venture is more “critical” for Embraer than it is for Boeing.

“Without the JV, Embraer growth prospects are very limited. Now Embraer can participate in the development of a new middle-market airplane [NMA] if it happens and the new single-aisle along with a potentially new turboprop programme.

“It appears that Embraer has more to gain in the JV with the backing of its commercial programme from a much larger company,” says Razzhivina, adding: “Boeing gains engineering expertise, which usually takes time to nurture. There is also a potential to increase its footprint in Latin America.”

Morris says that when the joint venture was first mooted in late 2017, Cirium

concluded it made sense for Boeing because it connected the US company to Embraer’s highly skilled engineering resources. But he says that “a lot has changed since 2017” – not only with the Max, but also with Embraer’s primary regional jet market, where Bombardier’s CRJ exit and the Mitsubishi SpaceJet’s continued development delays seem to have presented Embraer with a “de facto monopoly”.

New turboprop concept

Embraer’s plan for a possible turboprop programme adds another dimension to the joint undertaking.

Slattery observes that ATR has an effective monopoly in the turboprop market, which he says is stifling competition and innovation. He adds that the De Havilland Aircraft of Canada Dash8 was becoming increasingly irrelevant, with very few sales.

According to him, there will likely be two models of any Embraer turboprop, which will be slightly smaller than the E-Jet family. The aircraft will be in the same size range or slightly larger than the 70-seat ATR72.

Crucially, he says the programme is contingent on the joint venture with Boeing.

Cirium’s Morris is of the view that a turboprop concept could shift the whole rationale for the joint venture for both parties.

“Perhaps Embraer should just double down on selling the E2 and use funds generated there to do the turboprop on their own,” he suggests.

“Boeing was in the turboprop market many years ago when it owned De Havilland of Canada and the Dash8 programme. For various historical reasons largely linked to labour it wasn’t able to make a success of that and sold it to Bombardier.

“If one considers the potential size of the prize – our last fleet forecast published in 2019 predicts total turboprop market delivery value of \$60 billion over the next 20 years compared to \$1.56 trillion for single-aisle – I do wonder what shareholder value there will be for Boeing?”

Morris adds: “As for Embraer, I guess with the E2 establishing itself in the market and their business jet programmes stable, a new turboprop makes logical sense if they want to remain in the regional space. But I refer back to the relatively small market, and also note that the ATR is well established as a simple and effective design.”

Avitas’ Kelly believes that if the business case for an Embraer turboprop “makes sense”, he can see the desire to build an all-new turboprop to challenge ATR’s dominance in this market.



It is more likely that the JV becomes more important as the [737 Max] grounding continues. The fresh engineering resources can benefit both.

Olga Razzhivina, senior ISTAT appraiser, Oriel

“Without the JV, the new turboprop would not happen because of the large investment required,” he notes.

New product lines

Beyond a possible turboprop programme, could the joint venture deliver other product lines or enhancements to existing offerings from Embraer or Boeing?

“The new turboprop seems to be gaining momentum but beyond that the future is less clear on new product lines,” says Kelly.

“Obviously, Embraer will continue marketing and improving the E2 product line over the near term. I still see Boeing launching the NMA, with 220 to 275 seats, sometime next year. Embraer will be able to contribute engineering resources to that design. I expect the new single-aisle will enter service around 2032.

“With the JV, Boeing’s focus will be on building the new single-aisle airplane for the 140- to 220-seat market, while leaving Embraer to design the most efficient airplane for the 100- to 140-seat category,” he adds.

Beyond a turboprop programme, Razzhivina believes that most of the input from the new entity is likely to take place “behind the scenes”, with Embraer engineers being deployed on Boeing projects.

Boeing’s attention may be preoccupied with fixing the Max, but closing the joint venture is, in the long term, likely to offer clear benefits for both parties. 

Financing goes green

Can green loan financing improve pricing for borrowers?

Environmental, Social and Governance (ESG) ratings could become the focal point for future investments. The first green financing of an aircraft had to include two key components: an asset that has the means to be aligned with the green loan principles (GLP), developed by the loan market association (LMA) and an airline that is at the forefront of the ESG initiatives.

Braathens Regional Airways (BRA) has been proactive in this field, and it was natural that the Swedish regional carrier would be involved in the first transaction.

In February 2017, BRA performed its first biofuel flight, using a blended biofuel sourced from used cooking oil. The fuel for the flight was supplied by Air BP and was sourced and blended 45% to 55% with conventional fuel in California. The biofuel flight also marked the first time an ATR turboprop had used a biofuel blend on a commercial flight.

The carrier has developed several offers for its customers (individuals and companies) to encourage them to finance biofuel for their flights, by paying a surcharge – about €30 (\$32) per ticket. After a flight, and depending on the number of passengers who paid the surcharge, the aircraft is refuelled with the appropriate amount of biofuel, and is based on a fixed-cost equivalent to an average flight time of one hour.

BRA was also the first commercial airline to offset 110% of its emissions of green house gas (GHG), in 2019. The Swedish airline aims to reduce GHG emissions by 50% per passenger by the middle of this decade, and aims to become fossil-free by 2030.

Its chief executive officer, Geir Stormorken, says: “We have made a commitment to decrease our environmental impact and the ATR is an essential part of our strategy. With that as a goal, it simply makes sense to choose the most-efficient aircraft. By replacing parts of our existing fleet of regional jets with ATR72-600 aircraft, we will emit 7,500 fewer tonnes of CO₂ per aircraft, per year.”

For ATR, this green financing transaction confirms the high sustainable value of the ATR turboprop aircraft. “The ATR72-600 aircraft has a significant environmental advantage over regional jets and other turboprops emitting 40% less CO₂. Turboprops are more efficient than jets on short sectors as they accelerate air using less power, so use less fuel,” states the manufacturer. Nicola Checcacci, vice-president customer and structured finance at ATR, says green financing perfectly

fits its strategy and vision as an original equipment manufacturer (OEM).

“We want to be the most sustainable OEM and lead in this direction. ATR is investing in reducing carbon footprint,” he tells *Airfinance Journal*.

ATR is using the green financing to promote the true image of the turboprop, especially the ATR models, which are greatly positioned in the turboprop market.

“We need to change the perception of the turboprop. Turboprops are seen as old technology and old-fashioned aircraft, but today new turboprops are in line with what we expect in sustainable flying. It is a direct answer for airlines looking to reduce their carbon footprint. A 40% carbon footprint reduction over a regional jet on 300-nautical mile routes is significant,” says Pascal Campos, customer and structured finance director at ATR.

By issuing a green loan to finance the purchase of low fuel-consuming aircraft, operating lessor Avation coherently responds to its commitment in terms of development of a more sustainable aviation transportation, as well as addressing a crucial issue of the sector in terms of environmental contribution and responsibility.

The Singapore-based lessor may seek further opportunities to increase green finance options in the future, given the composition of its fleet, which includes the ATR72-600 and Airbus A220 types.

Green loan advantages

German financier Deutsche Bank provided and arranged a 10-year tenor senior loan that features an amortising tranche in euros.

The net proceeds from the loan will exclusively finance ATR72-600 deliveries for Avation. Three ATR72-600s have been placed under operating leases with Braathens.

Avation states that the eligible assets will be 100% financed with the loan proceeds. There will be no co-financing.

For Deutsche Bank, this deal is expected to pave the way for more green-focused financings in the aviation sector.

“Deutsche Bank is proud to have played a key role in the first green financing of a commercial aircraft,” says Richard Finlayson, head of global transportation finance, Asia.

“We’re hopeful that this leads the way for more sustainable financing activity in aviation, and increased adoption of lower carbon emission aircraft across the industry, to help make flying more eco-responsible,”

he adds. The senior loan follows the green loan principles as structured by the LMA.

Independent agency Vigeo Eiris, which provides ESG ratings, believes the project of replacing ageing regional jets with new ATR72-600 aircraft at BRA is aligned with the GLP established by the LMA.

The agency assessed the coherence between the green loan and the borrower’s sustainability strategy and commitments, the loan’s potential contribution to sustainability and its alignment with the four core components of GLP 2018: use of proceeds, proceeds for project evaluation and selection, management of proceeds and reporting.

Vigeo Eiris carried out a due diligence assessment between 22 November and 13 December 2019. “We consider that the information made available enables us to establish our opinion with a reasonable level of assurance on its completeness, precision and reliability,” it says in a report.

The popularity of green bonds, and green finance in particular, has soared over the past few years, and issuers are taking advantage, as banks are more willing to invest in sustainable financing. The leverage to negotiate pricing from the borrower perspective is therefore expected to increase.

“More generally, green bonds may have a pricing advantage for borrowers against a similar non-green transaction. Pricing will be a few basis points less,” says Checcacci.

“Our expectation is that the pricing gap will increase in the future because more financiers and investors will be willing to participate in green sustainable projects.”

Campos says: “We see a few basis points advantage but it will increase with greater acceptance of the product and competition.”

He cites one recent request for proposal to finance ATR deliveries involving one bank, initially not interested in the transaction because of the credit quality, eventually stepping in when the loan requirement included a green loan financing option.

“We expect more appetite from banks to participate in sustainable financing projects in the future,” he adds.

ESG ratings could become the focal point for future investments but those are unlikely to feature most narrowbody and widebody aircraft.

Checcacci says: “Not all customers will be accepting this form of financing because the ESG rating agency is not only assessing the asset but also the project on a broader scale.” ▲

ATR

ATR (Avions de Transport Regional) is a joint venture partnership which was established in November 1981 between Aerospatiale (now Airbus) and the Italian company Aeritalia (now Leonardo). Production is based in Toulouse alongside Airbus's commercial aircraft facilities.

The company's fortunes have been closely linked to those of turboprops in general. The 50-seat "regional jets mania" of the 1990s caused a decline in demand for turboprops, but there has been a significant revival since 2006, not least because the economic advantages of fuel-efficient turboprops increase as fuel prices rise.

The resurgence of commercial turboprop sales has been remarkable for a type of aircraft that many commentators and industry insiders thought had been made obsolete by the advent of the regional jet. ATR has been the chief beneficiary of this resurgence.

The Franco-Italian joint venture has sold more than 1,750 aircraft, of which about 1,550 have been delivered.

ATR manufactures two sizes of turboprop aircraft: the 70-seat ATR72 and the 48-seat ATR42.

The original ATR42 entered service at the end of 1985. The first commercial operations of the ATR72 followed four years later in 1989. Both aircraft types have been the subject of several major upgrades and current-production aircraft are designated as -600 models.

Over the past decade, ATR has been challenged to produce a bigger aircraft. There has been speculation that ATR would add a stretched 90-seat version to its product line, but the company has dampened expectations that it will launch such an aircraft. Instead, it has produced a 78-seat high-density ATR72-600 version.

The aircraft benefit from the inherent advantages of the turboprop design in terms of fuel efficiency, and relatively low emissions and cost efficiencies, particularly on shorter sectors.

There is some recent evidence that the market may have peaked and sales are becoming harder to come by. While De Havilland Aircraft of Canada, by acquiring the Bombardier Q Series, is still a viable competitor, ATR will also have to acknowledge Embraer's potential plans for a new 70- to 90-seat turboprop.

In 2018, ATR booked firm orders for 52 aircraft, comprising 23 ATR42-600s and 29 ATR72-600s. This compared with 113 aircraft in 2017 and 36 in 2016.



At the time of going to press, ATR had not released its 2019 sales figures, but *Airfinance Journal* had recorded 43 firm orders by 31 December 2019.

Lessors

An appetite for the types has also emerged from the leasing community. The manufacturer attracted orders from GECAS, Air Lease, DAE Capital and Avation as well as Nordic Aviation Capital (NAC) in the early 2010s.

But NAC has been the constant and reliable leasing partner since 2003. The Danish-based lessor's 105 ATR-600 aircraft announcement at the 2019 Paris air show confirmed NAC's dominance of this segment.

Deliveries, which are scheduled between 2020 and 2025, will extend the lessor's pipeline of new deliveries when its previous order, for up to 75 ATR aircraft in 2014, ends delivering this year.

NAC's confidence in the ATR-600 is a testimony of its relationship over the years because it has had a history of signing large aircraft orders.

"Our order has certain clauses, but we have some flexibility as to switching models within a relatively short notice period. ATR has become very flexible over the year, which is appreciated," said NAC's chairman Martin Moller last summer.

At the time, the lessor had more than 200 ATR aircraft in its portfolio.

ATR42-600 STOL

Last autumn, ATR received approval to offer the short-take-off-and-landing (STOL) variant of the ATR42-600 model, and announced three orders for the variant.

The manufacturer tells *Airfinance Journal* it has received a commitment for three units of the ATR42-600S on top of the 10 orders from leasing company Elix Aviation Capital, two from Air Tahiti and five from

an undisclosed customer which it first revealed at the Paris air show.

Certification of the ATR42-600S is expected to occur in the second half of 2022 and the first delivery of the type is expected in 2023. The STOL variant will allow airlines to operate at small airports.

"Adding the ATR42-600S to our family makes total sense and paves the way for the company's future," says ATR chief executive officer Stefano Bortoli.

"There is a huge potential for 50-seater aircraft and the ATR42-600S could help airlines widen their horizons, as it can reach up to around 500 new airports across the globe. This is clear illustration of our dedication in helping more people and more remote communities benefit from being part of a connected world and in a sustainable way," he adds.

First ATR72-600F deliveries

This year will be key for ATR's new-build freighter, because launch customer FedEx Express is expected to take delivery of the first of 30 aircraft it has on backlog.

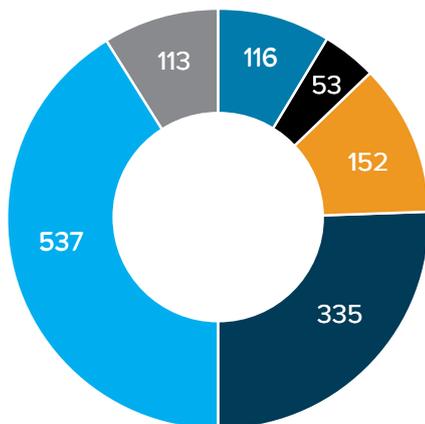
The cargo carrier, which operates converted ATR42 and ATR72 freighters, placed an order for 30 new ATR72-600Fs along with 20 options in 2017. These will be the first ATR turboprops built specifically for cargo service, rather than converted from passenger aircraft.

Sporting a windowless fuselage, the new freighter will feature a forward large cargo door, a rear upper-hinged cargo door and reinforced floor panels.

It will support both bulk cargo and unit load device configurations, with a bulk capacity of 74.6m³, or space for up to seven LD3 containers in unit load device mode.

Bortoli says the ATR72-600F model represents more than 10% of the ATR backlog and the aircraft will be a game-changer for the freighter market. ▲

ATR: Region of operation of current fleet



- ATR 42 500
- ATR 42 600
- ATR 42 300/F models
- ATR 72 500
- ATR 72 600
- ATR 72 200/F models

1,306 ATR aircraft in the current fleet



Source: Airfinance Journal's Fleet Tracker

Bombardier



Less than two years ago, Bombardier was still in control of its commercial aircraft portfolio: the Q Series, the CRJ Series and the CSeries, as it was known at the time.

Today, all of that is gone or about to disappear after the Canadian manufacturer's decision to sell its remaining 31% stake in Airbus Canada Limited Partnership (ACLP), the holding company of the A220 (successor of the CSeries); its final divestment from its commercial aircraft business.

Consistent with Bombardier's five-year turnaround plan, and after a comprehensive review of strategic alternatives, the company has pursued various avenues to strengthen its balance sheet and enhance shareholder value over the past three years.

In June 2018, Bombardier sold its Downsview property, the site of global business jet and Q400 regional turboprop production, to the Public Sector Pension Investment Board. Under the agreement, the manufacturer would continue to operate from Downsview for up to three years after closing of the deal, with two optional one-year extensions.

In November 2018, Bombardier announced the sale of the Q Series aircraft programme, a year after selling a majority share in the CSeries programme to Airbus.

Six months later, it closed the sale of the Q Series aircraft programme assets to De Havilland Aircraft of Canada (formerly Longview Aircraft Company of Canada), an affiliate of Longview Aviation Capital, for gross proceeds of about \$300 million.

The agreement covered all assets and intellectual property and type certificates associated with Dash8-100/-200/-300 and Q400 operations at the Downsview manufacturing facility in Toronto.

Last summer, Bombardier entered a definitive agreement with Mitsubishi Heavy Industries for the sale of its regional jet programme for a cash consideration of \$550 million and the assumption by Mitsubishi Heavy Industries of liabilities amounting to about \$200 million.

Mitsubishi Heavy Industries would acquire the maintenance, support, refurbishment, marketing and sales activities for CRJ Series aircraft, including the related services and support network in different locations, as well as the type certificates.

Then, news emerged early this year that Bombardier was considering a full exit from the Airbus A220 because of revised estimates about programme returns.

"While the A220 programme continues to win in the marketplace and demonstrate its value to airlines, the latest indications of the financial plan from ACLP calls for additional cash investments to support production ramp-up, pushes out the break-even timeline and generates a lower return over the life of the programme," it said.

Bombardier held a 31% stake in ACLP, the joint venture with Airbus and Investissement Québec (which held 19% and acts for the government of Québec), when Airbus announced on 13 February that it was increasing its stake to 75%

under a deal that would also see the Investissement Québec shareholding rise, to 25%.

Bombardier says the transaction includes cash proceeds of about \$600 million from Airbus, of which \$531 million was paid on closing with the balance to be paid over 2020-21. Crucially, it eliminates future capital requirements for the A220 programme, estimated at about \$700 million.

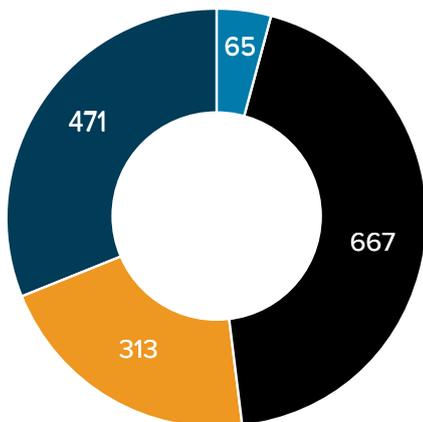
The Canadian manufacturer says the sale of its interest in the ACLP, combined with the previously announced aerospace divestitures, will generate more than \$1.6 billion in cash proceeds and eliminate close to \$2 billion in liabilities and future commitments.

Bombardier has said the deal "completes its strategic exit from commercial aviation", although that will finally occur once Mitsubishi's CRJ programme acquisition is finalised, which is scheduled for the first half of this year.

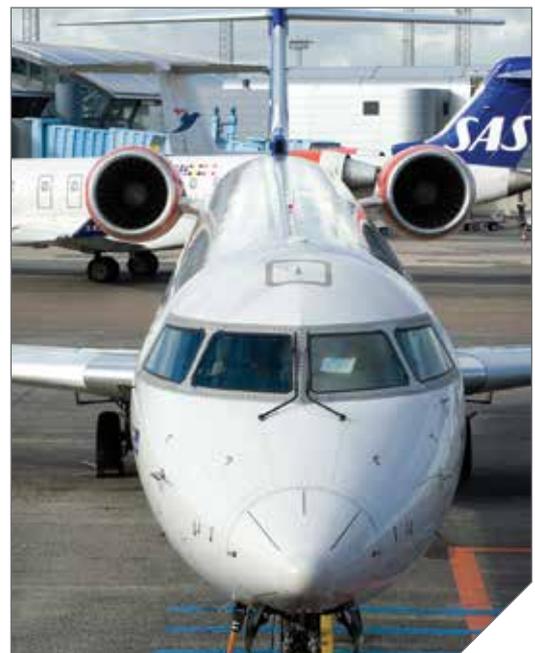
"With our aerospace transformation now behind us, we have a clear path forward and a powerful vision for the future," said Bombardier president and chief executive officer Alain Bellemare last year. "Our focus is on two strong growth pillars: Bombardier Transportation, our global rail business, and Bombardier Aviation, a world-class business jet franchise with market-defining products and an unmatched customer experience."

Bombardier had sold more than 1,950 CRJs and *Airfinance Journal* estimates the backlog at about 20 aircraft. ▲

Bombardier: Region of operation of current fleet



- Bombardier CRJ1000
- Bombardier CRJ200
- Bombardier CRJ700
- Bombardier CRJ900



1,631 Bombardier aircraft in the current fleet

Source: Airfinance Journal's Fleet Tracker

Embraer



Embraer geared up in transitioning its E1 models to E2 models in 2019. The Embraer E190 and E195 backlogs are almost exhausted and the Brazilian manufacturer is focusing on its E2 programme, which included a 16 E190-E2 and 137 E195-E2 orderbook at 31 December 2019.

Embraer was busy in 2019 on two fronts: securing certification of two aircraft models – the E195-E2 in April and E175-E2 in December – as well as its commercial aircraft sales.

In February, Pratt & Whitney delivered the first PW1900G production engines for Embraer's in-development E195-E2, the largest variant of the manufacturer's re-winged and re-engined E-Jet E2 family.

The E195-E2 aircraft has more than 24% reduction in fuel burn per seat than the previous-generation E195, with NOx emissions 50% below the ICAO CAEP/6 regulation and 19dB to 20dB of ICAO Chapter 4 cumulative noise margin, says Embraer.

The E195-E2 certification paved the way for deliveries to customers to start, among which is AerCap, which had an order for 50 units (via its acquisition of ILFC) for forward leases to Air Astana and Azul.

Other lessors exposed to the variant include Airastle (11 units) and ICBC Aviation (10 units). Both announced a total of 21 placements with KLM Royal Dutch Airlines' subsidiary KLM Cityhopper last year. The Dutch carrier also ordered

six aircraft of the type, as it aims to replace KLM's Boeing 737-700 fleet. KLM Cityhopper will start taking deliveries in the first quarter of 2021 and will phase out its E190 fleet by 2022.

Embraer secured new customers for the E195-E2 type in 2019. It sold 13 aircraft to Nigeria's Air Peace, while Binter Canarias added two units to its orderbook.

The manufacturer also recorded a large number of E175 commitments last year, mostly with repeat orders. United Airlines placed orders for 20 units and optioned 19, SkyWest Airlines placed two orders totalling 16 units (and ordered 20 more aircraft earlier this year), while Fuji Dream Airlines added two E175 units to its orderbook.

Embraer secured two new E1 customers in 2019: Egypt's CIAF Leasing for three E190s and Congo Airways for two E175s.

Embraer's E190-E2 aircraft, which is also powered by the Pratt & Whitney PW1900G engine, entered service in April 2018 with Wideroe, followed by Air Astana in December 2018.

In late 2019, the Embraer E175-E2 performed its inaugural flight, kicking off a rigorous 24-month flight test campaign.

The E175-E2 has one additional row of seats compared with the first-generation E175 and can be configured with 80 seats in two classes, or up to 90 in a single class.

Embraer says the model will save up to 16% in fuel and 25% in maintenance costs per seat compared with the E175. Like the

E190-E2 and the E195-E2, the E175-E2 will have the longest maintenance intervals in the single-aisle jet category with 10,000 flight hours for basic checks and no calendar limit for typical E-Jet operations. This means an additional 15 days of aircraft utilisation over a period of 10 years compared with current-generation E-Jets.

Embraer delivered 89 commercial aircraft in 2019 of which 67 were for the E175 model.

Its backlog stood at 338 aircraft, of which an estimated 181 were for the E175 model.

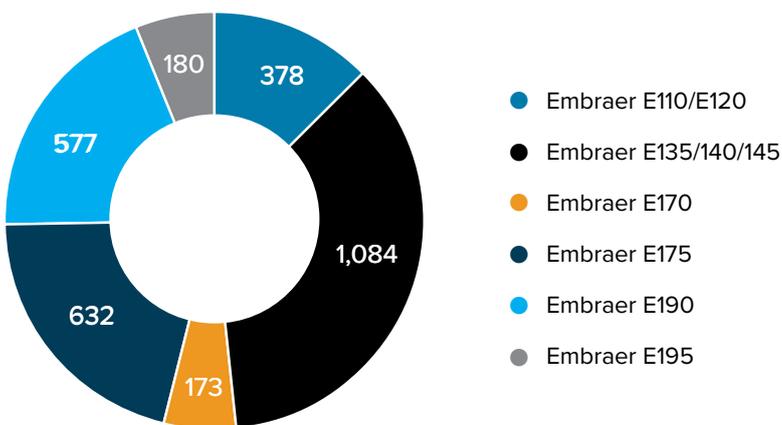
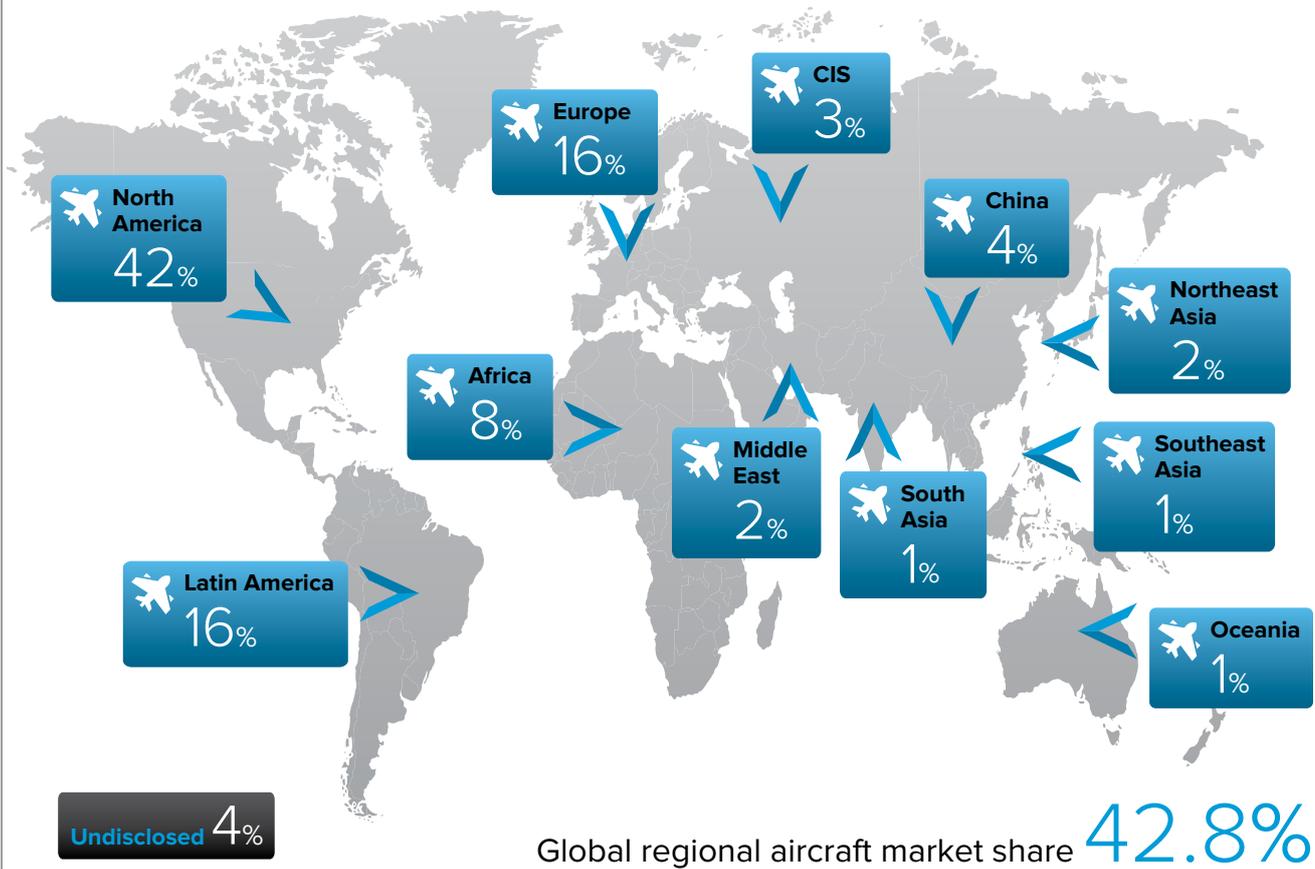
Regional aircraft deliveries are worth \$7.2 billion in financing requirements and, despite a 5% drop in the number of aircraft being delivered in 2019 compared with 2018, the overall dollar volume will remain at similar levels, says Embraer.

The manufacturer anticipates financing requirements in the sub-150-seat market to rely more on debt and capital markets in the future.

In its newly published aircraft finance outlook, Embraer points out that the segment's reliance on export credit agencies is at historically low levels. Embraer expects the banking markets to cover 38% of this year's deliveries, compared with 28% in 2018. Cash financing, which represented 40% of last year's financings, is set to drop to 31%.

But Embraer expects the regional aircraft market (up to 150 seats) to feature financing backed by a non-payment insurance product this year. ▲

Embraer: Region of operation of current fleet



3,024 Embraer aircraft in the current fleet

Source: Airfinance Journal's Fleet Tracker



Mitsubishi Aircraft



Mitsubishi Aircraft, which has been involved in the manufacturing of the MRJ family for almost 15 years, rebranded last year its 76-seat MRJ70 as the SpaceJet M100, while the 92-seat MRJ90 will be known as the SpaceJet M90.

Last summer's move came at a time when the Japanese manufacturer is seeking to ensure its place in a consolidating market for regional aircraft that has seen Airbus acquiring a majority interest in the CSeries (now the A220 family) and Boeing in the process of taking over its Brazilian rival Embraer.

Mitsubishi will be hoping that CRJ customers will now look to its SpaceJet products as a modern alternative. The SpaceJet products benefit from the geared turbofan technology while the rebranding is also underlining planned improvements to performance and cabin comfort.

The Japanese manufacturer is also making plans to introduce a larger 100-seat model that will be called the SpaceJet M200.

The SpaceJet M100 is mainly addressed for the US market, where the scope clause terms of pilot union agreements mean that aircraft used for regional airline applications need a maximum take-off weight of no more than 86,000 pounds. Mitsubishi will be using new lighter-weight materials for the new model so it can meet this requirement, while still offering 76 seats in three-class configuration.

Mitsubishi says the model can also be flexibly configured for other global market needs up to 88 single class seats, with industry-leading operating economics throughout the full range of configurations.

"The regional market is an attractive one, full of untapped growth potential," says Alex Bellamy, Mitsubishi Aircraft Corporation's chief development officer.

"Millions of people around the world rely on regional air travel to get to where they need to go. There is no reason that their experience as passengers should not be as good as or better than on a mainline flight. The SpaceJet family provides the missing link in a curb-to-curb experience for the next generation of travellers, while bringing a higher level of value to a neglected and undervalued market segment."

After several delays to a development programme that began almost a decade ago, the larger SpaceJet M90 was expected to enter service with launch customers Japan Airlines and All Nippon Airways before the end of 2020. It has now been postponed to April 2021 at the earliest.

In the meantime, Mitsubishi Aircraft confirms that Hisakazu Mizutani, its current president, will become chairman. Takaoki Niwa will take his place as president, effective from 1 April. Niwa most recently served as president and chief executive officer of Mitsubishi Heavy Industries America.

Bombardier acquisition

In June 2019, Mitsubishi Heavy Industries entered a definitive agreement with Bombardier for the acquisition of its regional jet programme. The agreement is scheduled to complete in the first half of 2020. Mitsubishi Heavy Industries will acquire the maintenance, support,

refurbishment, marketing and sales activities for the CRJ Series aircraft, including the related services and support network in different locations as well as the type certificates.

"This transaction represents one of the most important steps in our strategic journey to build a strong, global aviation capability. It augments these efforts by securing a world-class and complementary set of aviation-related functions including maintenance, repair and overhaul, engineering and customer support," says Mitsubishi Heavy Industries' president and chief executive officer, Seiji Izumisawa.

Bombardier's regional jet programme is seen as complementary to the Japanese firm's existing commercial aircraft business – in particular, the development, production, sales and support of the Mitsubishi SpaceJet commercial aircraft family.

The maintenance and engineering capabilities of the CRJ programme will further enhance critical customer support functions, a strategic business area for Mitsubishi Heavy Industries in the pursuit of future growth, states Bombardier.

The challenges lie in integrating the units within the Mitsubishi SpaceJet entity as well as getting certification for the long-awaited aircraft.

Bombardier had sold 1,950 CRJ aircraft and its backlog was down to 19 aircraft as of 31 January 2020.

Airfinance Journal understands that 17 units were still to be delivered to American Airlines and Delta Air Lines, while the remaining two aircraft were to deliver to a corporate entity. ▲

De Havilland Aircraft of Canada

De Havilland Aircraft of Canada has announced order commitments for the Dash8-400 aircraft, reflecting the appetite for the model and probably availability in terms of slots.

UAE-based lessor Palma Holdings signed a letter of intent for the acquisition of 20 Dash8-400 aircraft at the Dubai air show. The manufacturer also signed a conditional purchase agreement with another lessor, Aero Capital, for three Dash8-400s.

These commitments came after other announcements from Aeroflot subsidiary Aurora (five aircraft), Nigerian energy conglomerate Elin (three aircraft), while the Ghanaian government signed a deal to purchase up to six Dash8-400s.

The country has announced plans to launch an Accra-based carrier to serve domestic, regional and international routes.

De Havilland Aircraft of Canada booked its first firm order last October with the United Republic of Tanzania for three Dash8-400s. The 78-seat aircraft will be leased to and operated by Air Tanzania.

The Canadian manufacturer hopes to continue the legacy of the Dash8-400 model, which addresses the 74- to 90-seat market. Last autumn, it delivered the 600th Dash8-400 produced at the company's Toronto facility. The milestone delivery underscores the aircraft's global reputation as a network builder for airlines, on the strength of its short take-off and landing capabilities and efficient regional operations. "At full 90-seat capacity, the Dash8-400 aircraft now fills a niche unmatched in the market, and we also

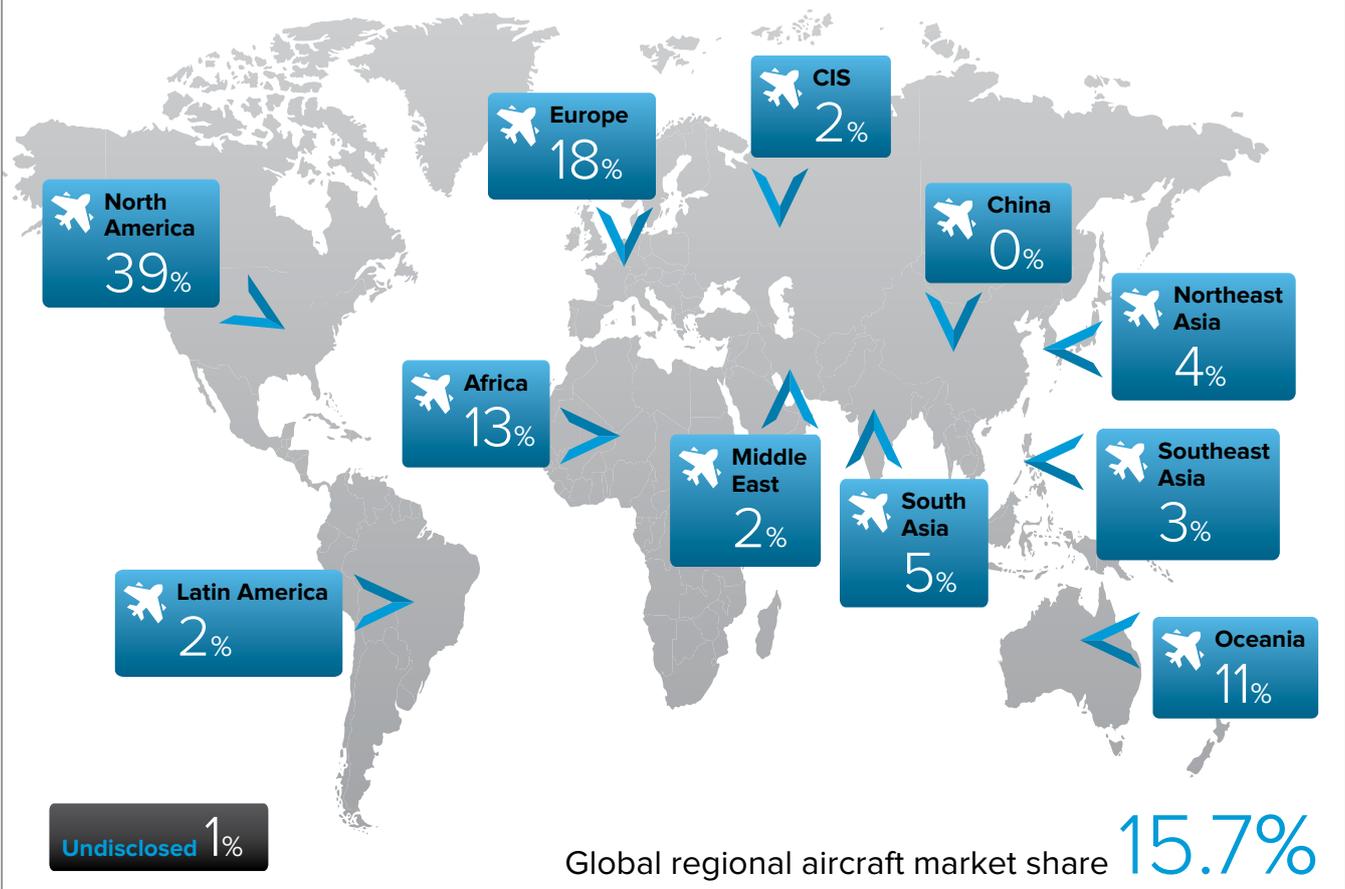
have the ability to deliver aircraft in other configurations according to the needs of the customer. For example, the Dash8-400 could offer a very compelling three-class, 50-seat configuration for regional aircraft operators seeking to serve scope-limited opportunities," says De Havilland chief operations officer Todd Young.

According to Young, the original equipment manufacturer sees especially strong potential for Dash8-400 operations in India. ▲



1,110 De Havilland Aircraft of Canada in the current fleet

De Havilland Aircraft of Canada: Region of operation of current fleet



Source: Airfinance Journal's Fleet Tracker



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