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Regional aircraft 2018



Regional aircraft news

US Bangla Airlines adds Q400

US Bangla Airlines has acquired a Bombardier Q400 aircraft equipped with Pratt & Whitney PW150A engines from Ancra Leasing. MDT arranged the transaction.

The 2001-vintage aircraft was last operated as a corporate shuttle by Bombardier.

Airfinance Journal's Fleet Tracker shows that US Bangla Airlines already operates three 2001-vintage Q400s along with four Boeing 737-800s.

Lessor-owned ATRs on the market

Elix Aviation Capital is the owner of two 1990-vintage ATR42-300s currently up for sale or lease, sources indicate.

Both aircraft are operated by UK regional carrier Stobart Air and are being remarketed by Airstream International, which also has a mandate for two ATR72-500s.

By cross-referencing information from sources with *Airfinance Journal's* Fleet Tracker, the 1997-vintage and 1998-vintage aircraft are understood to belong to Elix and rival lessor Nordic Aviation Capital, respectively.

Fleet Tracker indicates that both aircraft are in storage.

Boeing-Embraer deal has 'common ground'

The desire to form a commercial tie-up on the E-Jet programme is a mutual one for Boeing and Embraer, argues Richard Aboulafia, Teal Group's senior vice-president of analysis.

"Everyone says: 'why would Boeing do this? Is Boeing desperate for a 100-seater? Do they need a couple hundred of engineers as they fired a bunch of their engineers years ago?' I would argue it is two-way. I think there is the basis of a common ground in a deal," according to Aboulafia, speaking at the Pacific Northwest Aviation Alliance conference.

"Embraer has settled into \$4 billion to \$5 billion in revenues on the basis of very hard work and really smart leadership, but I think it is a two-way street in wanting to do a deal with Boeing," he says, adding: "Embraer wasn't a major player 30 years ago. Then they invented the ERJ, the E-Jet and business jets. But my conclusion is that they are kind of running out of growth opportunities."

Aboulafia says he "does not like the idea of an acquisition" by the US manufacturer.

"There are a whole bunch of issues – Embraer's DNA is extremely different compared with Boeing's. Also, there is this political dynamic between the US and Brazil that does emerge. I also think you want to be very careful about owning a Brazilian company outright."

Boeing has said there are still issues to address before a partnership can be agreed with Embraer.

Scott Hamilton, founder of Leeham News and Comment, speaking at *Airfinance Journal's* Global Airfinance conference in Dublin, notes that the Seattle-based manufacturer needs to shore up human resources for its expanding product line.

"I believe a deal eventually will get done as Boeing faces a major exodus of engineering talent as 5,500 engineers and technicians prepare to retire," says Hamilton. "Also, Boeing faces two new programmes soon: the new midsize aircraft and new small aircraft products."

Hamilton says there are 1,702 engineers and technicians who are aged 60 and up to 3,823 who are aged 55 to 59.

He adds: "The layoffs in the Boeing workforce in recent years cut too deeply. Boeing has been rehiring some of those engineers, but there aren't enough of up-and-coming engineers to replace the 5,550 people that are retiring in the next 10 years."

Fokker trading continues through 2017

Thirty-nine Fokker aircraft were placed in 2017, compared with 42 transactions in 2016, GKN Aerospace's Fokker Services business has announced.

In Europe, Cypriot airline Tus Air became a new operator of Fokker aircraft when it purchased two Fokker 100s and four Fokker 70s. Dutch company ATS also

purchased a Fokker 70, which will become operational this year. Fokker Services adds there has been a strong demand for wet leases from various traditional Fokker 100 operators in Europe.

In Australia, Alliance Airlines purchased a VIP-configured Fokker 70 from the Netherlands government, as well as a VIP-configured Fokker 100, which is equipped with long-range tanks. These aircraft will be used on corporate and VIP charters throughout Australia. Alliance Airlines is the largest Fokker operator in the world.

Fokker 70s and 100s in Australia are increasingly being used for regular public transport in addition to operating on more traditional fly-in, fly-out routes in support of natural resources industries, says the Dutch company.

MWG, based in Myanmar, purchased two Fokker 70s that are used on domestic and regional services. Bek Air, in Kazakhstan, added two Fokker 100s and Leasor in the Philippines became a new Fokker operator when it introduced a Fokker 50 in December.

Mexican operator Mayair added two Fokker 50s while Fly All Ways of Suriname added one Fokker 70. A start-up in South America purchased two Fokker 70s, which will become operational during 2018, while an undisclosed operator added one Fokker 100 to its Fokker fleet.

Jetways Airlines in Kenya added four Fokker 50s, including two full freighters and one Fokker 70 to its fleet. An additional six Fokker 50s went to other operators in East Africa. Finally, Avmax in Canada purchased four Fokker 50s from Air Iceland. Three of these aircraft have been sold to operators in Kenya.

"Low operating costs, aircraft longevity and comprehensive support remain key elements in all of the deals last year," says Fokker Services' director of aircraft remarketing, Peter van Oostrum.

"We're glad with the mix of existing and new Fokker operators, and many of the available Fokker 70s have been placed. Going forward, we continue to see a healthy supply and demand situation for all three Fokker types," he adds.

GKN Aerospace's Fokker Services business does not sell or lease Fokker aircraft. It facilitates placements by sellers and lessors through its FlyFokker programme and remarketing services, in addition to providing comprehensive support to Fokker aircraft operators throughout the world.

About 400 Fokker aircraft are operational worldwide. ▲

ATR



ATR (Avions de Transport Régional) was established in November 1981 as a joint partnership between Aerospatiale (now Airbus) and the Italian company Aeritalia (now Leonardo). Production is based in Toulouse alongside Airbus's commercial aircraft facilities. At the beginning of 2018, ATR had about 1,400 employees.

ATR company's fortunes have been closely linked to those of turboprops in general. The emergence in the 1990s of regional jets such as the Embraer ERJ145 and Bombardier CRJ200 models caused a decline in demand for turboprops, but there has been a significant revival over the past 12 years, 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.

Beyond airline customers, the leasing community also has accepted the ATR family. For example, Dubai-based DAE Capital ordered 40 ATR72-600s at the Singapore air show in February 2014. In January 2018, Nordic Aviation Capital renewed its confidence in the ATR72-600, ordering an additional 15 aircraft from the manufacturer.

ATR manufactures two sizes of turboprop

aircraft – the 70-seat ATR72 and the 48-seat ATR42. 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.

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.

ATR introduced the high-capacity ATR72-600 version with Cebu Pacific in September 2016. The model seats 78 passengers.

There has been much speculation since the beginning of the decade that ATR was planning a larger model to take advantage of the return to favour of the turboprop, but the plans have not materialised. Instead, ATR continued to sell the ATR72-600 models.

The company has envisaged sufficient demand for a production rate of 100 aircraft deliveries a year, but its highest level of deliveries reached was 88 aircraft in 2015.

However, there is some recent evidence that the market has peaked and sales are becoming harder to come by. The problem is exacerbated by the increased participation of lessors, with leasing companies accounting for significant percentages of the manufacturer's order backlog. Nonetheless, in January, ATR issued briefings saying it had consolidated

historical levels of turnover and deliveries, despite a challenging market environment. Production has stabilised at 80 aircraft a year, compared with 51 in 2010.

In 2017, ATR booked firm orders for 113 aircraft, along with 40 options. The level of firm sales tripled the number of orders received in 2016, for which the Toulouse-based manufacturer reported 36 sales (34 ATR72-600s and a pair of ATR42-600s).

ATR's largest order last year was for 50 ATR72-600s from Indian carrier Indigo, while Iran Air firmed a 20 ATR72-600 order. ATR also sold six ATR72-600s to Mandarin Airlines.

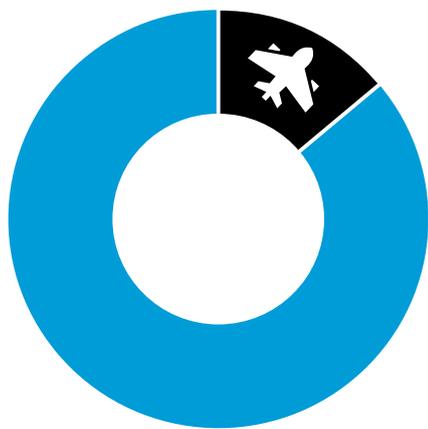
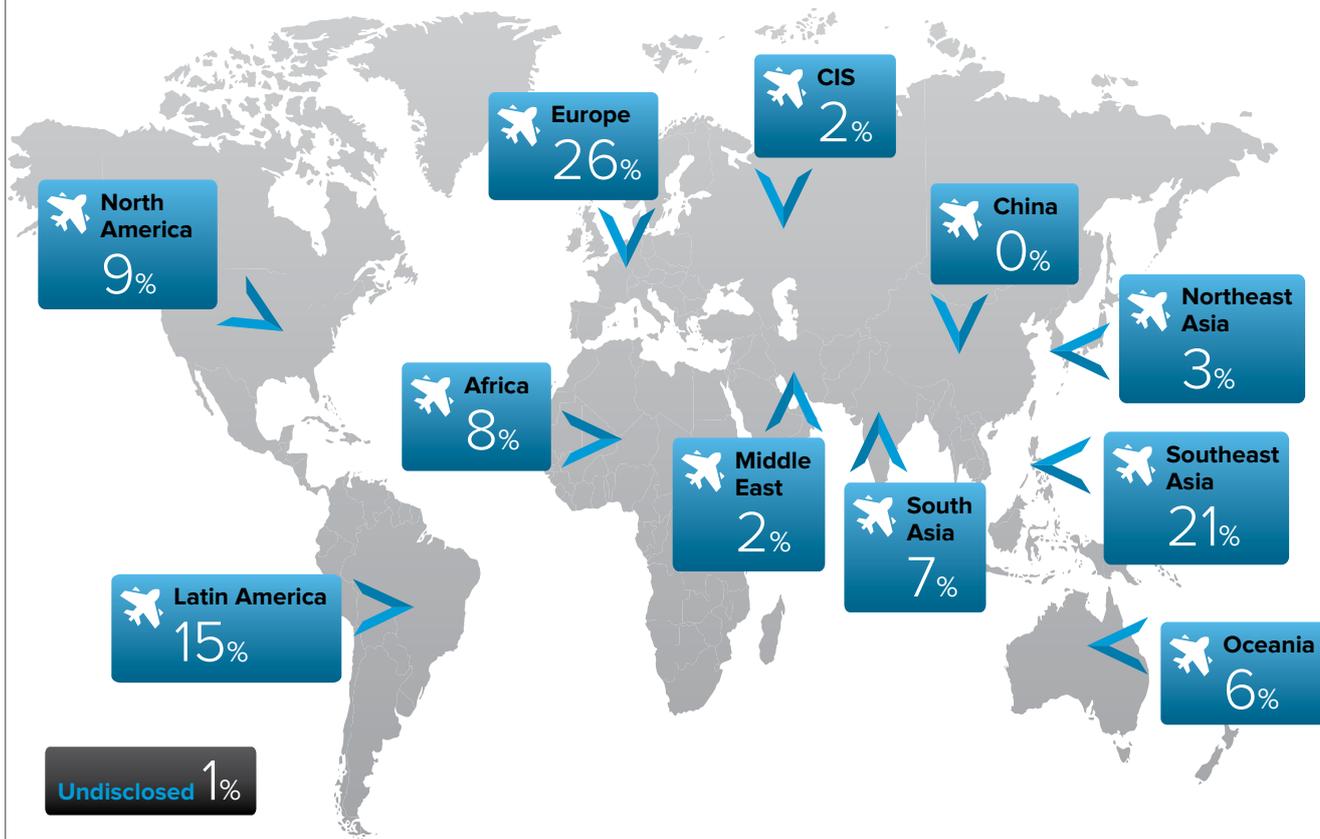
But only one ATR42-600 order (Japan Air Commuter) was placed during the year. ATR announced a memorandum of understanding with two Chinese customers at the Paris air show for a total of 13 ATR42-600s, which have yet to be firmed up.

The Franco-Italian joint venture also recorded a 30 ATR72-600 freighter order from FedEx, its first US customer order in decades. It has sold nearly 1,700 aircraft, of which about 1,450 have been delivered.

The turboprop manufacturer delivered 80 aircraft (70 new ATR72-600s, eight new ATR42-600s and two second-hand ATRs), and reached a book-to-bill ratio of 1.45.

ATR secured a solid backlog representing three years of production. *Airfinance Journal* estimates that the aircraft backlog stood at 250 units, at the end of last year, up from 212 at the end of 2016. ▲

ATR: Market share of current fleet by region



14.1%
of global regional aircraft fleet



1,238 ATR aircraft in the current fleet

Source: Airfinance Journal's Fleet Tracker

Bombardier



The origins of Bombardier trace back to 1942 as L'Auto-Neige Bombardier Limitée, a company which specialised in snowmobiles, created by engineer Joseph-Armand Bombardier.

It was renamed Bombardier Limited in January 1969, as it went public, listing on the Montreal and Toronto stock exchanges.

In 1986, Bombardier acquired civil and military manufacturer Canadair, which had been under the Canadian government's control since 1976, after its acquisition from US company General Dynamics. As part of Bombardier, Canadair's trademark is in the series of business and regional jets known as the CRJ Series, or CRJs.

Shortly after, de Havilland Canada, Short Brothers and Learjet operations were absorbed by Bombardier's aerospace arm, which now accounts for more than half of company revenue.

Bombardier's most popular aircraft include its Q Series turboprops, its CRJ100/200s and CRJ700/900/1000 regional jets.

In September 1998, Bombardier launched the Bombardier Regional Jet eXpansion (BRJX), a larger regional jet in a two- to three-seat configuration for 85 to 110 passengers. But two years later, the project was shelved in favour of stretching the CRJ700 into the CRJ900. Later, the CRJ1000, another stretch of the CRJ family, was launched.

In 2004, Bombardier launched a feasibility study for a five-seat-abreast CSeries to replace ageing DC9s, MD80s, Fokker 100s and Bae 146/Avro RJs with 20% lower fuel burn and 15% lower operating cost than aircraft produced at the time. The smaller version would carry 110

to 115 passengers and the larger 130 to 135 passengers over 3,200 nautical miles.

Bombardier's board of directors authorised marketing the aircraft in March 2005, but a year later the Canadian manufacturer announced that market conditions could not justify the launch of the programme.

In February 2008, the board of directors authorised Bombardier to offer formal sales proposals to airline customers in the 100- to 149-seat market segment and subsequently launched the CSeries programme in July of that year.

In June 2016, Bombardier handed over the first CS100 aircraft to Swiss International Air Lines, which was the launch customer for the type. Air Baltic was the launch customer for the CS300 and received the first unit in December 2016.

In December 2017, the US Department of Commerce proposed a 292% tariff on CSeries to be imported into the country. This was a ruling on a complaint by Boeing that Bombardier was selling the CS100 to Delta Air Lines at unduly low prices, because of subsidies from the governments of Canada and Quebec. This allegedly produced an unfair competitive advantage.

The US International Trade Commission (ITC) ruled on 26 January 2018 that "100- to 150-seat large civil aircraft from Canada do not injure the US industry". Bombardier won with a 4-0 decision by the ITC. Boeing was given 30 days to file a notice of appeal to the US Court of International Trade.

Airbus tie-up

In October 2017, Bombardier announced a partnership with Airbus on the CSeries,

which the original equipment manufacturer (OEM) believes will more than double the value of the programme. Bombardier says the partnership is expected to drive commercial momentum and production cost savings. The transaction remains subject to regulatory approvals and is expected to close in the second half of this year.

The Canadian manufacturer added that new engine delivery delays from Pratt & Whitney would impact full-year CSeries aircraft deliveries.

Furthermore, certain engines originally designated for production aircraft in the fourth quarter of 2017 would be redirected to support spare engine requirements of current CSeries customers.

After the end of the third-quarter 2017, Bombardier signed a letter of intent with a European customer for up to 61 CSeries aircraft, including a firm order for 31 aircraft with options for an additional 30 aircraft.

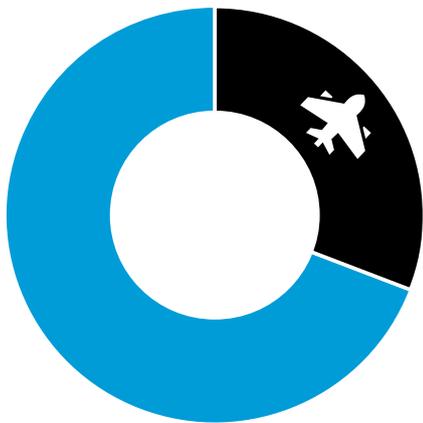
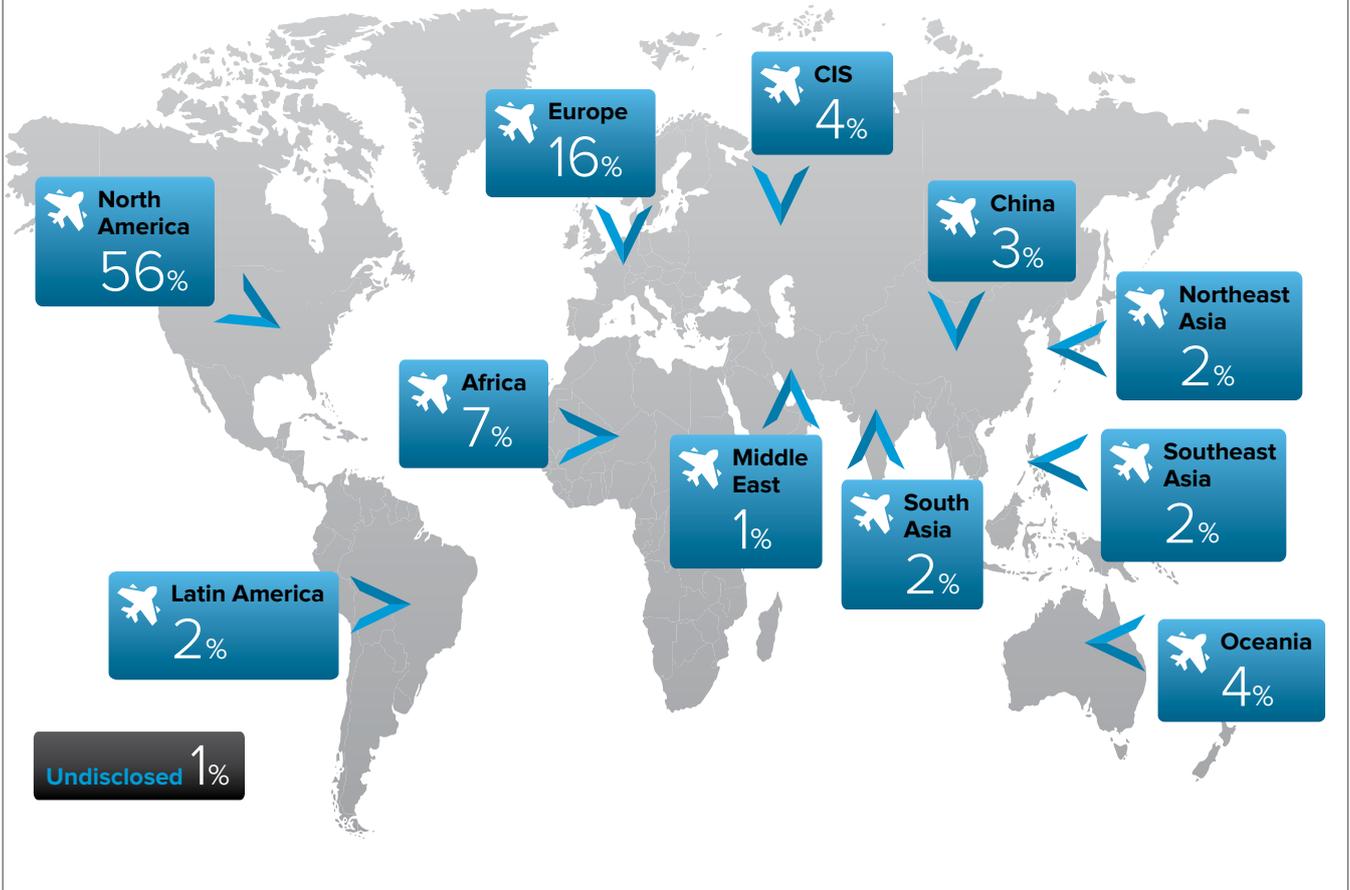
Airfinance Journal estimates that Bombardier Commercial Aircraft booked a total of 72 commercial firm orders from customers in 2017.

Egyptair committed to 12 CS300s, while Cityjet ordered 10 CRJ900s during the year along with an unidentified customer for another six CRJ900s.

Bombardier sold 44 Q400s to Spicejet (25 aircraft), Qazaq Air (two aircraft), Cemair (two aircraft), Philippine Airlines (seven aircraft), Ethiopian Airlines (five aircraft), Nordic Aviation Capital (two aircraft) and Ilyushin Finance (one aircraft).

The OEM's order backlog stood at 433 units at 30 September 2017. ▲

Bombardier: Market share of current fleet by region



31.2%
of global
regional
aircraft fleet

2,736 Bombardier aircraft
in the current fleet



Source: Airfinance Journal's Fleet Tracker

Embraer



Source: Embraer

Embraer was established in August 1969 and has its headquarters in São Paulo, Brazil.

There were a few key milestones for the regional aircraft manufacturer in 2017, including the 20th anniversary of the ERJ145 in January and the rollout of the E190-E2 in March.

Embraer delivered 101 commercial aircraft last year, comprising 79 E175s, 12 E190s and 10 E195s. The deliveries were within the Brazilian manufacturer's outlook ranges for the year of 97-to-102 commercial jets.

In the last quarter of 2017, Embraer delivered 23 commercial jets: 14 E175s, five E190s and four E195s. It was fewer than in the same period a year earlier, which recorded 32 commercial aircraft deliveries.

During the last quarter of 2017, Embraer also received firm orders for 15 E175s from an undisclosed customer and an order from Belavia, Belarusian Airlines, the national carrier of Belarus, for one additional current-generation Embraer E195.

The manufacturer ended 2017 with a backlog of \$18.3 billion. Embraer had a firm order backlog of 435 commercial aircraft as of end-2017.

It received 86 net firm orders for commercial aircraft in 2017, compared with the 45 net orders it booked in 2016.

Embraer Commercial Aviation reached the mark of 1,400 E-Jets delivered in 2017. The commemorative aircraft was received by American Airlines, which in the quarter also signed a firm order for 10 additional E175 jets.

In an interview with *Airfinance Journal* at the 2017 Paris air show, John Slattery, chief executive officer of Embraer Commercial Aircraft, said that his main focus was to broaden Embraer's footprint in Southeast Asia. Slattery also added that he believes the arrival of the geared turbofan (GTF) engine on the Embraer E2 family will bring a "second wave" of opportunities to place aircraft in the Middle East.

He says: "My expectation is that, with the capability of the E2 and the E1 in terms of range and increased seating, coupled with the capabilities of the GTF engine, we will have a second wave of opportunities in the Middle East."

In Embraer's Market Outlook 2017, which reviews prospects in the regional jet segment over the next two decades, the manufacturer said it expects world passenger traffic to maintain 4.5% annual growth until 2036.

According to the forecast, the Middle East and Asia-Pacific will be the fastest-growing markets by 2036, with an annual revenue passenger kilometre (RPK) growth rate of about 6%, followed by Latin America with 5.2%, Africa with 4.9%, the Commonwealth of Independent States with 3.6%, Europe also with 3.6% and North America with 2.7%.

Asia-Pacific will be the largest market, accounting for 37% of world RPKs. Combined, Europe and North America will generate 36% of total air transport demand.

Embraer foresees world demand for 6,400 new jets in the 70- to 130-seat

segment over the next 20 years – 2,280 units in the 70- to 90-seat segment and 4,120 units in the 90- to 130-seat segment – representing a total market value of \$300 billion.

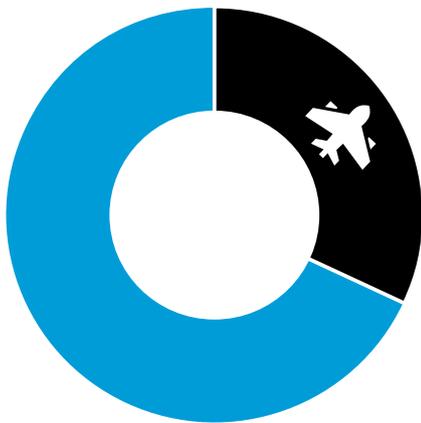
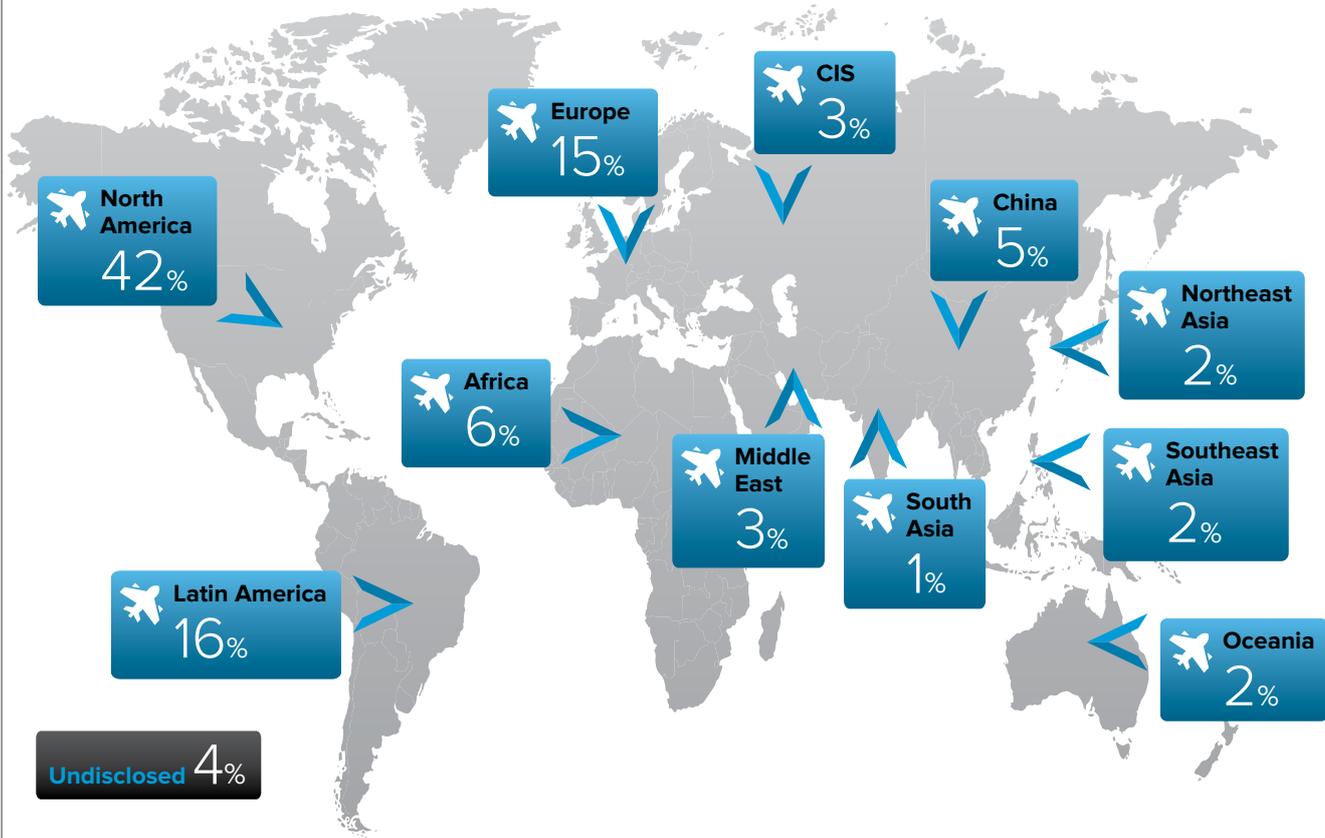
The 70- to 130-seat jet world fleet-in-service is expected to increase from 2,700 aircraft in 2016 to 6,710 by 2036, the fastest-growing segment among all aircraft categories. Replacement of ageing aircraft will represent 37% of new deliveries and 63% will represent market growth.

Boeing tie up?

Embraer made the headlines for different reasons towards the end of 2017. After Airbus announced it would take control of the loss-making Bombardier CSeries programme in October, Embraer revealed just before Christmas that it was in discussions with Boeing about a potential tie-up. Although the deal looks likely to take place, Boeing chief executive officer Dennis Muilenburg, more recently, has seemed to have gone cool on the prospects of the merger. At an investor conference in Miami organised by Citigroup on 21 February, he said he saw a Boeing-Embraer acquisition as a "great strategic" fit, but the deal was not essential.

"If we can get to a good deal and one that adds value for our customers and our companies, we will do it," he says. "If we can't get to the finish line, it doesn't change our strategy. This is a great complement to our strategy but not a must do." ▲

Embraer: Market share of current fleet by region



32.7%
of global regional aircraft fleet

2,869 Embraer aircraft in the current fleet



Source: Airfinance Journal's Fleet Tracker

Mitsubishi

Mitsubishi Aircraft Corporation is owned principally by Mitsubishi Heavy Industries, but has a number of smaller stakeholders, including Toyota Motor Corporation.

The company is developing the Mitsubishi Regional Jet (MRJ) family. Its original plans focused on the 70-seat market with the MRJ70 but, in response to changed market requirements after the aircraft's launch and programme delays, emphasis has switched to the larger MRJ90.

The MRJ has 387 orders, comprising 213 firm orders, 170 options and four purchase rights. However, in January it lost up to 40 when Eastern Air Lines (EAL) cancelled its order for 20 and 20 options.

A Mitsubishi spokesperson said that "after extensive discussion" between the manufacturer and Eastern Air Lines, "we determined that cancellation was the best option for both parties. We mutually agreed the same conclusion".

The spokesperson adds: "This cancellation is not a matter having to do with the MRJ programme or its development. It is a result of the changes in EAL's business configuration. After a business sell-off to Swift Air, EAL returned its license [air operator certificate] to the FAA [Federal Aviation Administration] and has withdrawn from aviation business.

"We remain in constant contact with our customers, and throughout these discussions our customers remain fully supportive of the MRJ programme; they look forward to the MRJ's entry into market."

In an interview with *Airfinance Journal* at the February 2018 Singapore air show, Mitsubishi Aircraft's vice-president and

general manager, sales and marketing, Yugo Fukuhara, said the intention is not necessarily to replace the order with a single customer.

"It is up to our ongoing discussion with potential customers. There are some potential customers who may order bigger and some smaller," he says.

Fukuhara adds that MRJ is discussing with leasing companies as well as airlines for new orders. He says he expects the MRJ's order split to be 30% from leasing companies and 70% from airlines "in the long term". He adds that leasing companies "can be a very good partner to jointly conduct marketing activity to the operators".

Asked whether Mitsubishi Aircraft has been in discussions with new Chinese lessors for orders, Fukuhara says: "We are open to discuss with anyone. We think maybe Chinese leasing company discussion – it should be not near term but long term."

Fukuhara emphasises that the MRJ programme is on track for a mid-2020 delivery to launch customer All Nippon

Airways. He says the aircraft has already passed the mid-point in its flight testing with more than 1,700 flight hours.

"The outcome of flight testing is very successful. This is one of the background of confidence we have," he says.

Fukuhara also responded to a question during a press conference about whether Mitsubishi Aircraft is considering a tie-up with another original equipment manufacturer, after the recent partnership between Airbus and Bombardier and a proposed link-up between Boeing and Embraer.

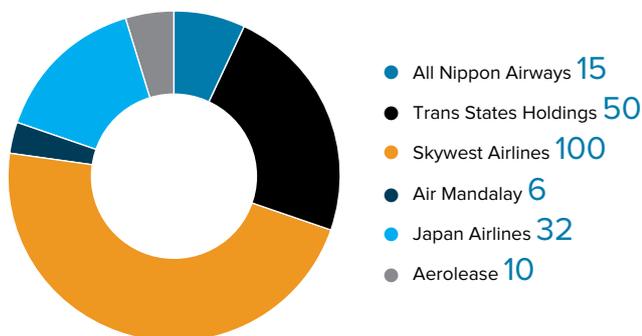
"Currently, we have no plan, but in the future anything will happen – but no, not at all. Not at present," he says.

Fukuhara adds that Mitsubishi Aircraft plans to introduce two new test aircraft. The company has four aircraft flying in Moses Lake and a fifth in Nagoya, Japan – mainly used for ground testing. The two additional test aircraft will initially fly in Japan before being ferried to Moses Lake.

Fukuhara says a date has not yet been set for when these aircraft will be introduced. ▲



Firm orders for MRJ90



53 Orders from Asia 25%

160 Orders from North America 75%

Source: Airfinance Journal's Fleet Tracker

Manufacturers continue to open new markets

Regional OEMs are finding new operators, worldwide, for their aircraft.



ATR opened a number of new markets in 2017. The Franco-Italian manufacturer delivered to Iran Air, opening up a new market with significant potential for growth. ATR also delivered to Japan for the first time, with Japan Air Commuter (JAC), and signed comeback deals in the US with Silver Airways and with FedEx for brand new freighters. ATR also inked landmark letters of intent with Chinese carriers.

The manufacturer says more than 150 airlines opened new routes all over the world last year, with ATRs offering passengers more opportunities to connect for business and leisure. Airlines in the asia-pacific region opened the new routes of ATRs in 2017, though there was significant growth in ATR networks on every continent.

Embraer says that its E-Jets are being used in several business applications, not only regional, but also with mainlines and low-cost carrier operations.

This is a market where regional aircraft comprise only 2.3% of the entire fleet, while the global average is 25%. Thus, China desperately needs effective regional air connectivity and regional cargo to support its growing regional economies.

Karine Guenan, vice-president leasing, asset management and freighter and customer and structured finance, ATR

In 2017, the E-Jet family reached the milestone of more than 1,400 aircraft delivered in the five continents, which together, are serving more than 3,600 markets (240 more markets than served in 2016) and accumulated more than one billion passengers transported worldwide since the first delivery back in 2004.

Bombardier says its operators are constantly launching new routes or increasing frequencies with its aircraft. At the same time, operators are on a quest for higher yields and are closing less profitable routes. Some routes are being up-gauged, other thinner routes are then being served by regional aircraft and small single-aisle models.

Between 2016 and 2017, operators opened about 600 new routes, says the Canadian manufacturer, with significant growth in China, Asia, India, Africa, Latin America and the CIS.

ATR sees huge development potential

in China and India. Even accounting for the recent sale of 50 aircraft to Indigo, the manufacturer says there is still significant room for further growth in India.

The turboprop manufacturer predicts that India will need as many as 200 new turboprop aircraft in the next 10 years to match demand for development. In China, it sees the need for 300 new aircraft before 2035, which would lead to the creation of 800 new routes.

"This is a market where regional aircraft comprise only 2.3% of the entire fleet, while the global average is 25%. Thus, China desperately needs effective regional air connectivity and regional cargo to support its growing regional economies. We have the aircraft with the perfect economics to support Chinese operators to stimulate this growth," says Karine Guenan, ATR's vice-president leasing, asset management and freighter and customer and structured finance.

China offers a huge potential for regional flying, probably more around regional jets, argues Bombardier.

"If today the US regional system would be implemented in China, some 1,000 additional regional jets would be needed. We are at the beginning of a big change in China where regional aviation is becoming the backbone of air travel in the region," says Bombardier Commercial Aircraft senior vice-president of commercial Colin Bole.

Bombardier says North America and Europe are mainly replacement markets. Growth opportunities exist in many other regions, such as in Africa, where airlines realise the need to strengthen their domestic and regional flying before jumping to the operation of larger equipment. Connectivity in this continent continues to grow and airlines such as Ethiopian Airlines have become the regional champions for many countries beyond Ethiopia.

In South Asia, there is a growing appetite for larger turboprops and the 90-seat Q400 has gained interest, says Bombardier. In India, the Udan government initiative to boost regional flying is driving interest from airlines wishing to find the best compromise through high-density equipment and low costs.

Latin America is also recovering from years of economic downturn, says Bombardier, and new initiatives are taking place to re-establish services, in particular in large countries such as Brazil.

North America, and the US in particular, is another market where ATR sees significant potential for its aircraft where 400 routes have been lost in the past decade because of the economic inefficiency of ageing aircraft.

"Silver Airways' decision to introduce the ATR -600 series, following a deal with



The Q400 has been made for harsh environments: longer range, heavy schedules, hot and high. With more seats and extra productivity, there is tremendous benefits for airlines.

Colin Bole, commercial aircraft senior vice-president of commercial, Bombardier

NAC, confirms their belief in the economics of our aircraft. We believe that following the entry into service of Silver Airways' ATRs, other operators will quickly realise the economic benefits to be gained from our modern turboprops, so some of this connectivity can be restored. Some 250 turboprops are over 15 years old in the US," says Guenan.

Bombardier notes fleet growth for many of its regional aircraft operators in mature and emerging markets over the past two years. The Canadian manufacturer says PSA, Endeavor, Skywest, Air Georgian (which operates as capacity purchase agreement operators for Air Canada) have grown in North America, while SAS, Lufthansa Cityline and Air Nostrum have added aircraft in Europe. Growth in other parts of the world includes China Express, Cemair and Bolivian carrier Amaszonas.

Embraer says two meaningful examples of how E-Jets have been successful serving regional markets are companies such as Skywest, Horizon, Republic Airlines and Mesa in the US. In Europe, KLM-Cityhopper has replaced its entire Fokker

fleet with E-Jets, enabling the carrier to serve more cities, in more profitable markets, such as London City (previously inaccessible to them), says Embraer.

"The E-Jets were also the pillar of network expansion in airlines like Aeromexico, British Airways, Austral, Colorful Guizhou, Japan Airlines and GX Airlines," says Embraer president and chief executive officer John Slattery.

Fewer airlines have increased their turboprop fleets substantially over the past two years than their regional jet fleets.

Iran Air has gone from having no ATRs to operating eight in the space of one year. Braathens (BRA) is another example of an operator that has progressively increased its fleet, says ATR – the Swedish operator has nearly doubled its fleet size to 13 ATR72s.

"What we have seen over the last two years is an increase in new ATR operators, such as Iran Air, Indigo, JAC, Mandarin Airlines, Eastern Airways or Air Senegal, plus others, like Silver Airways, which will become new operators soon," says Guenan.

ATR says the ATR72-600 has a fuel burn advantage of 40%, a trip cost advantage of 20% and a seat cost advantage of 10% versus the Q400. "These figures clearly show the economic benefits of the ATR and contribute to the aircraft having the leading market share within the regional aviation segment," adds the European manufacturer.

Westjet Encore and Porter Airlines are prime examples in North America for growth with Q400s, while in Europe SAS, Aurora and Air Iceland Connect have added the Q series. Notable additions include Spicejet and PAL Express in Asia-Pacific and African carriers Ethiopian Airlines and Cemair.

"The Q400 has been made for harsh environments: longer range, heavy schedules, hot and high. With more seats and extra productivity, there is tremendous

benefits for airlines,” says Bole.

The Canadian manufacturer adds that its Q400 has the lowest cost/seat and highest productivity of any other turboprop in the market. Combined, it says these two factors offer incredible economic advantages.

Bombardier argues that the low-cost and dependability of the CRJ series are what airlines appreciate the most.

“The CRJs are cheap to operate. Even the new generation of re-engined regional jets cannot beat the CRJ economics. It is also very reliable, which means high utilisation. It offers piece of mind and, simply put, is a great money-making machine,” says Bole.

“When we look specifically to the E175, it has around 5% lower operating costs when compared to the CRJ900, represented mainly by the lower fuel burn as well as its lower maintenance cost,” argues Embraer. “However, it has multiple other advantages, like 25% more range, around 20% lower takeoff/landing field length and a superior cabin comfort. Those advantages gave to the E175 the leadership of 76-seats segment with more than 80% of the market share in the United States and 70% worldwide.”

Leasing potential

The lessor community finances about one-third of the Embraer global fleet. “I believe that’s a solid percentage,” says Slattery. AerCap, Aircastle and ICBC are the three lessors that have committed to the E2 orderbook.

“Our strategy is clearly defined and we don’t believe that you should have too many lessors with speculative orders at any one time in our segment of the market. On a mature basis, you probably want approximately 25% of your delivery stream with lessors. For larger jets, that percentage can be a little higher,” he says.

Embraer works with lessors closely as partners and its sales force does not distinguish a new aircraft direct sale versus supporting a lessor placement of a new aircraft, says Slattery. “I believe we are somewhat unique in that mindset and philosophy. It aligns Embraer’s interests optimally with those of our lessor partners.”

He expects plenty of news in the next couple of quarters on fleet placements by the lessors of the E2s as “we cadence into final type certification in the coming weeks”.

Leasing is a key market for ATR, as proved by the success of a series of speculative lessor placements since 2011. The manufacturer sees lessors representing about 25% of its backlog, offering a well-balanced opportunity to enter new markets while providing operational flexibility and diversification to its operators.

“We also see future potential and interest from Asian lessors, which will further support a breakthrough for ATR sales in mainland China,” says Guenan.



“When we look specifically to the E175, it has around 5% lower operating costs when compared to the CRJ900, represented mainly by the lower fuel burn as well as its lower maintenance cost.”

Colin Bole, commercial aircraft senior vice-president of commercial, Bombardier

Bole says North America and Europe are still the largest regional markets in the world, despite a rising demand in China. Bombardier sees great opportunities with leasing companies.

“We are working closely with lessors to manage supply and demand responsibly to ensure long-term value. As an example, less than 20% of the Q series fleet is leased, whereas more than 30% of our competitors’ fleet is leased,” he says.

According to Bole, lease rate factors in the large regional aircraft market (60 to 99 seats) are holding up much better than in the large single-aisle segment (150 to 220 seats).

“Availability of delivery positions for large single-aisle aircraft are not until 2023 and beyond, so any leasing company looking for near-term growth opportunities should take a look at the regional market,” he adds.

Secondary market

In the secondary market, Bombardier’s products are considered liquid and in demand and the manufacturer’s pre-owned inventory is at an all-time low, says Bole.

“The Q400 is well distributed with two-thirds of the fleet in mature markets with a growing footprint in Asia and other developing regions. In 2017, only 2.8% of the fleet was stored while our competitors were closer to 9%,” he adds.

Between 2012 and 2017, 75 CRJs were sold outside the US, with nine out of 12 operators based outside that country.

Pre-owned Bombardier aircraft are also sought after by regional cargo feeders and air cargo operators. More than 15 CRJ200 aircraft have been converted to either package freighter (PF) or special freighters (SF). With vintages of 15 years and older entering the market, the Q400 PF is also gaining strong interest, says Bole.

Embraer has been very successful in the secondary market, too. The placement of pre-owned aircraft, as they naturally come off lease from their first or second leases, allowed the manufacturer to expand its operator footprint.

Slattery says about 2.5% of the fleet installed is available for sale. “It is a pretty healthy level, but, in the end, represents a unique advantage for Embraer to look for new opportunities. In 2017, we added five new operators to our customer base – Airlink, S7, Georgian Airways, Buta Airways and Fastjet,” he adds.

Guenan says there are interesting opportunities for ATR operators to use legacy aircraft for a variety of operations. She says the ATR72-500s still retain more than 50% of their original value after 10 years of operations and offer competitive economics that will be interesting to certain operators for passenger operations.

The ATR72-500 model is an excellent candidate for passenger-to-freighter (P2F) conversions, she says.

“Furthermore, there are more than 300 ATRs which are older than 20 years old, while in terms of feedstock in the 10- to 20-year-old range, there are only 200 ATR -500s. This does not account for other turboprops, which would further emphasise this disparity between the used-market supply and demand. We therefore expect to see a strong demand for mid-age ATR -500s in the near future.”

ATR recently created a freighter, leasing and asset management division that offers a one-stop-shop to support the transition and acquisition of its aircraft on the secondary market – using its market acumen to lessen the financial impact on operators seeking this kind of investment opportunity. ▲



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